LIVELIHOODS AND ENVIRONMENT IN SOUTHERN THAI MARITIME VILLAGES

BY

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ABSTRACT

This thesis explores the diversification of local livelihood structure and the political economy of resource use in two maritime communities in Krabi, Southern Thailand.

The thesis is divided into four parts as follows: Part I (i.e. Chapter 2) examines the political economy of resource use in the Andaman Sea region. The objective of Part I is to place the research sites in a larger political-economic framework and to delineate the main problems that are found in this region. Part II focuses on the research sites. After setting the geographical and historical contexts, the economic organisation of the communities are unravelled in chapter 3. Chapter 4 examines the village household and gender issues with case studies to illustrate the points made. Part III (i.e. Chapter 5) examines at length the sources and patterns of livelihood in the research sites. The various economic activities that villagers engage in are explored in detail and case studies are used to illustrate the arguments made. Part IV consists of chapters 6 and 7. The objective of these two chapters is to reflect on the dilemmas villagers face in confronting change and their responses. Chapter 6 outlines the collective meso-level responses of fishing communities against the conflicts over local resources examined in Part I. In addition, the role of external agencies, namely Thai non-governmental organisations, in these collective meso-level responses of local fishing communities is considered. Chapter 7 considers the position of contemporary maritime villagers in the modern capitalist world-economy. Chapter 8 concludes the thesis by summarising the main points made and by reflecting on the relationship between livelihoods and the environment in Krabi.

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1. INTRODUCTION

CONVERSATIONS ON A BEACH IN PHANGNGA BAY

It is an early Saturday morning in November 1993. The long and harsh monsoon season is over and the best fishing season is beginning. The first rays of the sun are clearing the mist from the beach. The cries of gibbons roaming in the forest at the edge of the village echo off the nearby cliffs. A dozen small fishing boats lie anchored in the lagoon. A group of fishermen are preparing their nets and other fishing equipment for a day of fishing in the calm waters of Phangnga Bay.

Anthropologist: *Wan ni rau cha pai haa plaa thinai*

(Where are we going fishing today?)

Pong, a 34-year old small-scale fisherman: *Ku khit waa rau naa cha pai haa plaa oo theu ko daeng plaa oo kamlang khau ao phangnga rau cha chai bet leuw chai myk pen jya rau cha wae du wa sai myk khong ku yang yu thi doem mai*

(I think we should go looking for tuna near Daeng Island. Tuna is migrating past Phangnga Bay these days. We can use hand-lines and use squid as bait. On our way I want to stop and check whether my squid traps are where I left them last time.)

Anthropologist: *Thammai sai myk cha mai yuu thi doem*

(Why would the squid traps not be in their former places?)

Pong: *Mya khyyn ku hen fai khong rya uan laak song lam theu haang ko yao noi ku klua man laak sai myk pai mot*

(Last night I saw the lights of two trawlers near the tip of Ko Yao Noi island. I fear that their trawls have destroyed my squid traps.)

Lat, a 74-year old fisherman: *Samai korn ai ruang baeb nii mai khoei koet khyn samai nan plaa tem le mai mi phuak uan laak maa yaeng ching plaa chaak rau samai nii yae rau tong su kap phuak man talootwelaa*

(In the past this kind of thing never happened. The sea was full of fish. There were no trawlers around fishing for the same fish we do. These days we have to compete with them all the time.)

Anthropologist: *Samai nii chivit chao pramong phyynban lambaak kua samai korn mai*

(Is the life of fishermen these days more difficult than in the past?)

Lat: *Samai korn chivit man ko mai chai ngai rau tong chew rya leuko len bai tae plaa tem le le hai aharn thi rau tongkarn mai mi khao ko pai raek plian plaa sii loo dai khao lo nyng samai nii chivit plian mii uan laak mii naktongthieu, mii tha rya gipsum, bo kung ooh lai yaang singwaetloom ko plian mai chai siangwaetloom thaunan tae karn damnoen chivit taela wan duai samai nii rau tongkarn goern tha mai mi goern ko lambaak tong syy nii tong syy nan tae wela dieukan ko mii okaat mai mii okaat haa prasoppakarn samphat kap chivit phainook dek samai nii ko ruu laiyaang thi samai korn rau mai khoei samphat*

(In the old days life wasn´t easy either. We had to use sails to move around, but the sea was full of fish. The sea gave us the food we needed, if there was no rice then we´d exchange four kilos of fish for one kilo of rice. These days life has changed a lot. There are trawlers, tourists, the gypsum pier, shrimp farms... oh, many things. The environment has changed, but not only the environment, daily life has changed. These days you have to buy this and buy that. If you don't have any money then life is difficult. At the same time there are new opportunities around. You can experience the outside world. Kids these days know a lot more about the outside world than we used to know at their age.)

Pong: *Rau pen khon le rau yuu kap le man dii thi dai pen khon khong tua ng mai mii khrai maa bankhap wa tham ni tham nan tae ku ko sangket wa chaoban lai khon ko syy thidinkan pluuk suan yaang leuwko roem tham aatciip khon donkan ku eng mai au ku chop chivit naile maak kwaa*

(We are sea people, we live with the sea. It's good, you are your own boss, no one tells you to do this or do that. But I have seen that a number of villagers have bought land and are raising rubber trees and have started to do jobs like land people do. I myself prefer the life at sea.)

1.1 THE OBJECTIVES OF THE THESIS

The objectives of this thesis are: 1) to contribute to the knowledge of maritime societies in Southeast Asia, 2) to contribute to the knowledge of how the local livelihoods and environment are shaped by the challenges posed by the world-economy and 3) to contribute to policy making that takes into account the needs of small-scale producers and environmental aspects within a rapidly changing regional economy.

1.2 POSITIONS

In recent years the Thai economy has grown at a rate faster than that of most Third World economies. Since 1990, annual GNP growth in Thailand has fluctuated between 8 and 10 percent. The economy is being rapidly restructured as a result of rapid growth of the service sector, tourism, involvement of capital in agricultural production and industrialisation. This means that Thailand is being rapidly transformed from a country relying on agriculture to one joining the ranks of newly industrialised countries (NICs) (cf. Kulick and Wilson 1992:107-120; Warr 1993). Within the past decade Thailand has emerged as a regional economic centre in mainland Southeast Asia. The importance of economic issues can be detected in Thailand's policy-making regarding long-term economic goals. Economic considerations are increasingly the key determinants of the future and this can be discerned from the various global and regional schemes Thailand is involved in. For example, to mention just a few, Thailand has recently agreed to participate in the Asian Free Trade Area (AFTA), the General Agreement on Tariffs and Trade (GATT), the Cairns Group, Indonesia-Malaysia-Thailand Growth Triangle (IMTGT), and the Northern Quadrangle involving Thailand, Laos, Burma and China. (For a detailed discussion of the global and regional schemes and the challenges they pose to the development of Southeast Asian nations, see for example Imada

and Naya (eds.) 1992; Far Eastern Economic Review 24 Nov 1994:14-15; cf. Dixon 1991:206-216, 223-226.)

With Thailand's increasing integration into the capitalist world-economy; the state, through its bureaucratic apparatus, and the capitalist economy in the form of economic opportunism; consumer ideology and shifts in the structures of the local economies have posed new challenges to the lives of people in rural Thai society. In my view, one of the central projects of contemporary anthropology is to attempt to understand how people respond to the challenges of modernity. One of the very basic issues that all people everywhere are concerned with is livelihood. In most cases the challenges of modernity place livelihood at centre stage in the lives of individuals. How to make a living in a world filled with uncertainty? Will the skills of today be sufficient to make ends meet tomorrow? The **masterplot** of this thesis, therefore, deals with livelihood issues in a rapidly changing social and economic environment. Before delineating more specific questions the concept of livelihood should be unravelled.

CONCEPTUALISING LIVELIHOOD

Substantive economic anthropology saw **"economy as embedded process"**. Drawing on Polanyi´s (1944) writings, Halperin defines the economy, "as the instituted process through which humans in society interact with nature to supply the material means of livelihood. This means that the economy is not a single institution, but that it may be organised by many institutional arrangements - kinship, religious, political, magical; the market is only one such arrangement. Activities of individuals can best be understood in institutional contexts" (Halperin 1977:2). This means that institutions are assumed to be the primary units of description and analysis. Institutions organise individual behaviour by structuring

roles for people to perform. According to the substantive view, any economic activity has a physical, cultural and social dimension (Ibid:6). For example, if we think about fishing, the marine environment forms the physical dimension, rights of access form the social dimension and beliefs about the timing of work form the cultural dimension. For substantivists, institutions exist on their own, through time, apart from the individuals who pass through them. The formal economic anthropologists (e.g. Goodfellow 1939; Cook 1966; Orans 1968) on the other hand, saw the **"individual as a rational actor"**. They based their arguments on maximising models, based on the assumption that the rational actor would choose that alternative which maximises pay offs for a specific preference. In other words, as Prattis puts it, "formal economic anthropologists commonly define the economy as all rational choice-making behaviour, requiring the allocation of scarce means towards alternative ends" (Prattis 1987:22). With the rise of Marxist thinking in anthropology, especially in France (e.g. Terray 1972; Meillasoux 1972; Godelier 1978), both formalism and substantivism were rejected in favour of a new problematic that concentrated on the **"relations of production"** (cf. Seddon (ed.) 1978). For them the relations of production consist of those social relations between individuals in a society that determine the control of the means of production, the division of labour power between various work processes, and the circulation and distribution of the products of labour (Godelier 1987:108). In particular, Marxist economic anthropology made important advances in our understanding of how a capitalist mode of production penetrated and subsumed precapitalist modes of production (e.g. Wolf 1982).

However, in the 1980s, all-encompassing single truths were no longer in favour and post-modernism, with its idea that there is no single truth, but rather there is a plurality of perspectives, each with its own language, its own rules and myths, challenged anthropological thinking (cf. Schuurman

1993:23-25). In other words, current anthropological thinking accepts the fact that there is no all-encompassing single truth ´out there´ to be found but rather the findings of anthropological research are very much influenced by the metanarratives the researcher chooses to follow. Reflecting on the state of current critical anthropology, Ulin put it well when he wrote that, "the terrain of critical anthropology has two principal competitors: one informed by the metanarrative of political economy and its emphasis on the self-formation of the human species through systems of social labour and the other informed by the postmodernist emphasis on discourse and the representation of the ´other´ through the writing of ethnography" (Ulin 1991:63).

Questions about livelihood were also debated in the field of peasant studies, in which two opposing views i.e. the moral economy and rational economy perspectives sought to explain peasant economic behaviour. While the moral economy perspective has parallels with the substantivist stance, the rational economy perspective has parallels with the formalist stance.

Scott (1976) viewed peasant economics in terms of the so-called subsistence ethic. He bases his arguments on the analysis of village society in lower Burma, CochinChina and Northern Annam in the 1930s. According to him, the primary concern of peasants is avoiding the risk of going hungry. Under the principle of **´safety-first´ rule** peasants will opt for a low but secure income rather than the probability of a higher income with a risk of falling below the minimum subsistence levels (Scott 1976:15-26). The subsistence ethic is embedded in the normative or moral dimension of peasant economics which is manifested in the structure of village reciprocity, in social choices, in preferred systems of tenancy and in attitudes towards taxes (Ibid:26-29). Capitalist penetration narrows the subsistence margin of peasants and exposes them to new and greater risks of

subsistence crises therefore posing real threats to peasant livelihood (Ibid:58-68).

Scott shares the assumptions of earlier writers like Redfield´s (1956) and Foster´s (1965) that peasants have a uniform set of beliefs. However, he does take into account the fact that peasants form a heterogeneous group and therefore in village society life is not necessarily conflict free. Nevertheless, the normative order of peasant society helps minimise internal conflicts and possible conflicts are dealt with in constructive ways.

In contrast to the moral economy perspective, the rational economy perspective presents an argument that peasants do not operate on the basis of the ´safety-first principle´, but on the basis of ´**rational economic man**´ model. In other words, peasants are rational problem solvers whose productive behaviour is carried out on the basis of self-interest and calculation.

Popkin (1979) presents this view in his analysis of the Vietnamese village society caught in the processes of capitalist penetration from the French conquest up to about 1950. According to him, peasants are individual decision-makers who, when the possibilities are favourable, are willing to take risks and gamble in order to increase their income and advance their position in life (Popkin 1979:18-22). Village society is seen to be hierarchical in which patterns of distribution and collective action are inherent with both conflict and co-operation, with both power struggles and widespread benefits (Ibid:22-27). Although capitalist penetration poses threats to peasant livelihood, capitalist markets also provide potentialities for peasants to advance their welfare (Ibid:68-69, 186-87).

The rational economy perspective echoes the typical arguments advanced by some proponents of formalism in economic anthropology concerned with the subsistence nature of the peasant economy and with the way peasants cope with risks and uncertainties that are associated with technological innovations (e.g. Wharton 1971; Johnson 1971; Cancian 1980). The common argument advanced by them is that since peasant economy is based on small-scale production oriented toward domestic consumption, issues of risk and uncertainty are of paramount importance to the peasant when technological innovations are considered.

Peasants as rational actors are seen as not necessarily as conservative when they confront issues of innovation and change in their life. When they do not opt for new technology and innovations, it is not necessarily because they are conservative or resistant to change because their cognitive orientation leads them to do so, but rather because adoption of new technology is irrational in their economy. For example, Forman, (1970) in his analysis of Brazilian raft fishermen's economy, argues that the fishermen did not opt for modern fishing gear simply because of the structural constraints of their subsistence economy prevented them from doing so.

A convergence of both rational and moral economy perspectives is needed in order to understand the problems of livelihood of contemporary peasants. In most Third World countries where agriculture forms the basic backbone of the national economy, there can be discerned a clear shift from a primarily subsistence oriented economy to a market economy of a increasingly capitalist kind. For peasants involved in this shift the ways of procuring a livelihood have become increasingly complex. For example, Chai (1985), in a study of Ban Lao peasants of North-eastern Thailand, asserts that the diminishing agricultural resources in relation to the growing population have increased the importance of non-agricultural activities including temporary migration and wage employment

as a productive strategy. In other cases, cash cropping has become the only viable option for the peasants. For example, Turton discusses the case of Thai peasants from north-eastern Thailand who were incorporated into capitalist production by getting involved in growing sugar cane and tobacco for large agribusiness companies. These peasants felt themselves losing control over their own livelihood and in response they devised small-scale defensive and survival strategies in the area of subsistence rice production (Turton 1987:50-55).

The argument here is that as the market economy impinges on the lives of peasants, their economic behaviour cannot be explained solely in terms of the moral economy perspective nor in terms of the rational economy perspective. Rather, a convergence of these perspectives is needed. As Keyes points out, "although peasants do seek through rational calculation to maximise the well being of themselves and their families, they are constrained in so doing by the particular political-economic conditions within which they live and also by the particular world of meaning in which their actions make sense" (Keyes 1983:865).

An interesting way of thinking about livelihood is posited by Gudeman (1986) who argues that the central processes of making a living are culturally modeled. In other words, the constructions of livelihood can be conceptualised as **metaphors** because the activities of making a livelihood are enacted through a symbolic scheme which draws from known features of the social world (Ibid:37-43).

Lakoff and Johnson (1980) argue that metaphors are pervasive in everyday life and that the ways humans think and act are fundamentally metaphorical in nature. What we perceive, how we get around in the world and how we interact with other people are structured by our conceptual system. Certain aspects of the way we think, what we experience and what we do in our daily lives become highlighted and coherent through metaphors.

Metaphors, therefore, play a central role in defining our everyday social, political and economic realities.

Gudeman calls for investigations into people's own economic constructions or local models that reflect the local concepts and schemes that constitute the everyday economic activities of people. He draws on material from his work among Panamanian peasants (Gudeman 1978) to illustrate his arguments. The villagers of Los Boquerones experienced rapid changes within less than a decade in which they shifted from subsistence farming of rice and maize to raising sugar-cane for cash, to working for a government sugar mill that took control of their land.

Gudeman (1986:2-25) presents three schemes of livelihood as a historical series in which each scheme of livelihood was partly built from the preceding one. The first one is the domestic model. The core of this model is the circular reproduction of agricultural foodstuffs such as rice and maize. Land, freely available and owned by village households, is seen as a ´force´ which permits but does not ensure the accumulation of surplus. Labour consumes and transfers value derived from land. Production is oriented for household consumption and profits arise in exchanges between the rural and urban sectors. The household economy eventually changes to a dual situation in which both subsistence farming and cash cropping - sugar-cane production - are practised. Both productive activities are carried out simultaneously but ranked and kept in separate domains. Gradually, the reproductive schema of the household model becomes superseded by a linear schema. Land becomes individually appropriated. Labour is perceived as a homogenous quantity usually measured by time. Production for market competes with subsistence production and is seen as supplementing rather than complementing the subsistence cycle. Market consumption displaces home consumption in the process. In the third schema of wage goods - the government sugar-cane mill being the focus

of peasant production - the linear pattern of wage labour becomes central since all consumption depends on cash returns. Land becomes externally owned by an enterprise. Labour becomes externally and administratively organised. The ideological gap between the local and the larger disappears.

Gudeman observes that in each stage of change "peasants´ current model became a way of constructing or seeing a new experience" and that at each point "people creatively transformed their models such that there were continuities and discontinuities, metaphors and gaps, between them" (Ibid:25).

In my view, the major contribution of this perspective to understanding peasant livelihood is that a people's experiences of the world in which they act and their interactions with it are the keys to the central elements of forces in their economic system. The models of livelihood that peasants offer, as Gudeman demonstrates, are crucial to an understanding of their lives. As such models and metaphors of livelihood are not transcripts of reality, they constitute reality.

In the 1980s attention was drawn on to problems of population, resources, environment and development (cf. Chambers 1983). It was becoming more and more apparent that the resource base on which people depend for their livelihoods was depleted and destroyed at an increasing rate. Development had to become **sustainable** in order to satisfy the needs of the present generation without interfering with the needs of future generations (Schuurman 1993:21-22). In other words, to the concept of livelihood was added a concern for the future as well as for today.

The Bruntland Commission´s Advisory Panel on Food, Agriculture, Forestry and Environment developed sustainable livelihood security as an integrating concept:

> Livelihood is defined as adequate stocks and flows of food and cash to meet basic needs. Security refers to

> secure ownership of, or access to, resources and income-earning activities, including reserves and assets to offset risk, ease shocks and meet contingencies. Sustainable refers to the maintenance or enhancement of resource productivity on a long-term basis. A household may be enabled to gain sustainable livelihood security in many ways - through ownership of land, livestock or trees; rights of grazing, fishing, hunting or gathering; through stable employment with adequate remuneration; or through a varied repertoire of activities (Food 2000, 1987:3 quoted in Chambers 1987:9-10).

Nonetheless, for livelihood to be sustainable the people concerned must be able to participate in the political decision-making processes. Therefore, the concept of **empowerment**, which basically means "people´s efforts to increase their participation - that is, their control over physical and social resources - within the development process **(and achieve more control in their lives)**", was introduced (Vivian 1992:74; cf. Friedmann 1992, addition mine). The idea of empowerment is in a way to make the local communities determine, at least in part, the character and pace of change.

A further dimension related to the concept of livelihood that cannot be neglected is **gender relations.** Feminist anthropologists have reminded us of the "embeddedness of gender in social realities of people anthropologists study" (di Leonardo 1991:31). Women were not necessarily excluded from anthropological texts, indeed, often the woman in a husband-wife team specialised in women's affairs. Nonetheless, it must be said that anthropological monographs in general tended to neglect the importance of gender issues.

Women are crucial actors in the processes of earning an income of any household. Nonetheless, their contributions often remain ´invisible´ to many outside researchers. For example Handa (1994) argues that often the household head as reported in household surveys may not always identify the main economic provider and decision maker within the household. She argues that in contemporary developing countries temporary migration in search of employment is a common occurrence. In such

situations women are left to take care of their household. Drawing on evidence from the Caribbean, Latin America and West Africa, Handa argues that while in the past men have been considered as *de jure* household heads, increasingly often women are the *de facto* providers and decision makers. Davison (1993) presents similar findings for Malawian women. She argues that the tenacity with which women in these matrilineal, largely uxorilocal communities cling to individual family production rather then participating in gender specific collaborative forms of production signals a last defence against the historical erosion of their economic and political power.

Drawing on material from the Muda region in Malaysia, Hart argues that we should see the household as a political arena constituted by particularly dense bundles or rules, rights and obligations governing relations between men and women (Hart 1992:811). Accordingly, we must ask not only what the rules are but how they are reinforced in daily practice. In the Malaysian case historically the most problematic relationship in terms of labour control had been between parents and children, particularly sons. As labour requirements escalated, the locus of conflict increasingly came to centre upon the relationship between wealthy male employers and female workers. A key element in the upward pressure on wages was poor women's capacity to organise themselves collectively.

In recent years the linkages between gender, environment and livelihood have become an important part of research and development policy (Leach et al 1995:1). It has been recognised that since women often bear the brunt of taking care of household needs in most Third World countries, gender issues must be integrated into the analysis of environment and sustainable development policies. Shah and Shah (1995) have combined gender, environment and livelihood security as focal themes in their case study from India. They show that both men and women assume interchangeable roles as conservationists of

the environment, depending on the material relationship they have with their natural resources and the social context within which they operate. Secure livelihood opportunities and usufruct rights and the existence of enabling institutional mechanisms are of considerable importance for people to have a stake in conserving their natural resources. Shah and Shah argue that if environment-focused development programmes are to be sustainable, it is necessary to develop a consultative process with both men and women, so that the concerns and needs of all social groups within a community are addressed. In the case of common property resources, the role of inter-village dialogues, which take into account the complex gender and social relation within and among the village communities, are of critical importance.

Crehan puts it well when she notes that livelihood is about: "producing food, making a cash income, conserving access to resources, bringing up children, negotiating different kinds of social relations within and between households, and dealing with effects of agrarian change or social and political upheaval" (Crehan 1992:87). The concept of livelihood therefore encompasses physical, social, cultural, gender and even political dimensions. This thesis is concerned with exploring the **constitution of contemporary livelihoods** as defined above in **two Southern Thai communities** located along the shores of the Andaman Sea. Questions that are addressed in the course of the thesis include: What constitutes a viable livelihood for the villagers in the coastal communities in contemporary Krabi, Southern Thailand? What are the practices involved in constituting a livelihood in the 1990s? How do contemporary practices differ from past practices? What kinds of shifts and changes have occurred in the sources and patterns of livelihood? What is the political and economic context in which the individuals in the coastal villages operate? What options and choices do the villagers have in the face of changes? What kind of problems are there regarding the use of local resources? How do villagers respond to these

problems? What is the future of the coastal communities of Southern Thailand like? Each of the above questions is further broken down to a set of questions that are posed in relevant chapters.

1.3 WHY STUDY MARITIME VILLAGES IN SOUTHERN THAILAND?

There is an increasing amount of anthropological literature on peasant society and problems of social change in Thailand. (See for example, Hanks 1962, Phillips 1965, Moerman 1968, Tambiah 1970, Kemp 1976, Potter 1976, Turton 1976, 1984 and 1987, Sharp and Hanks 1978, Pasuk 1980, Hirsch 1990 among others.) Nevertheless, our understanding of Thai society remains land-oriented.[1] The only ethnographic studies of a maritime community are Fraser's (1966) work on a Malay fishing community in Pattani and Burr's (1974) study on religion in two Thai-Muslim communities in Songkhla, both located on the East coast of Southern Thailand.[2] The only anthropological work about Krabi that I have come across is an article written by a Thai anthropologist, Anderson (1988), who examines the play culture of Thai Muslim children in a fishing community near the town of Krabi.

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[1] In fact, there is a general lack of social science material concerning fishing communities anywhere. Ruddle and Akimichi rightly observe that, "compared with the larger literature on agricultural societies there are far fewer anthropological and related studies of fishing communities" (Ruddle and Akimichi 1984:4-5).

[2] There are some works written about the Malay Muslims of the east coast provinces, especially from the viewpoint of political science and history (see for example Surin (1985), who traces the roots of separatism in the Malay speaking border provinces; Forbes (ed.) (1988) for a collection of articles on historical and cultural studies of Muslims in Thailand and Forbes (ed.) (1989) for a collection of articles on the politics of the Malay-speaking South. These works, however, concern themselves mainly with the east coast Malay-speaking Muslims, who are an ethnic minority and therefore the works have only peripheral relevance to my thesis, which is concerned with Thai Muslim villagers in Krabi, who are a religious minority rather than an ethnic minority.

Questions of **development** and the **processes of social change** in Thailand are only partially understood if the **maritime communities of Southern Thailand** are not accounted for. In my view, there is a clear **need for an ethnographic account** of contemporary Thai maritime society cast within the specific context of the larger political-economic system which focuses on understanding the political and economic developments which both influence and are influenced by what happens at the local level.

1.4 FIELDWORK TECHNIQUES

Only a couple of days after our arrival in Krabi my wife Katja was offered a job in a local tourist establishment in the village of Ban Ao Nang, which was a convenient base for me to conduct my fieldwork. Ban Ao Nang was a Thai Muslim fishing village around 22 kilometres along the coast from Krabi town. It still relied on fishing but tourism had started to make inroads into the community in the form of simple guest houses and bungalows for backpackers. After purchasing a moped I made a general survey of around 20 fishing villages in the province with an aim to find a small-scale Thai Muslim fishing village that, 1) would be a representative community in demographic, economic and social aspects and 2) would fit the requirements of the research project. I toured the coast and talked to people from different communities. Some villages were either too large in terms of their population or too remote or too difficult to have access to during the monsoon season.

I had in mind to do a comparative study of two villages and wanted to find two suitable communities. Eventually, I found the villages of Ban Laem Pho and Ban Ko Kwang.

Ban Laem Pho is a village of some 151 households and the main attraction in the village is the so called `75 Million Years Old Fossil Shell Cemetery´. This rare geological phenomena

draws both domestic and international visitors to the village. As a result of this, many villagers have set up small booths selling various souvenirs made of sea shells. The influx of tourists to the village interested me and I decided that Ban Laem Pho would make an interesting research site.

Initially, in Ban Laem Pho I began talking to the villagers, especially the older generation, about local history and found out that this was a useful way to gain rapport with the villagers. I was soon known in both villages as someone interested in *pravat* (the past). I had lived in Thailand previously for fourteen years and I could communicate without any problems. Of course, I had to get used to the Southern dialect (*samniang paktai*). Through our discussions with the old fishermen I began to construct a picture of the life before the modern technological changes that were introduced to the area in the early 1960s. Older fishermen were pleased to talk about the past and their lives.

At the same time, I heard about Ban Ko Kwang, a fishing village of some 86 households, and the Southern Seaboard Development Project (SSDP), which basically means turning the vicinity of the village into a deep sea port and an industrial area. Such a development project interested me and I decided to pay a visit to the village. The headman Kasem was interested in my research project and welcomed me to his village.

In Ban Ko Kwang I was introduced to Hajji Yi, a respected religious leader of the community who took me under his wing. Hajji Yi introduced me to other villagers and within a very short period of time I knew most members of the community. Also here, as in Ban Laem Pho, I started by talking about the social history of the community. People in both villages grew accustomed to seeing me and began to invite me to their homes for meals. As the confidence of the villagers in me as a

researcher grew I began to probe about the present more and more.

In both villages I drew basic physical maps of the communities together with the villagers using RRA-methodology (Rapid Rural Appraisal Methodology). This proved a very useful way of obtaining information as the villagers themselves found the map drawing exercises entertaining while I gained insights about local resources and land use. Using RRA-methodology I then decided to construct seasonal fishing calendars in both communities. As fishermen saw that I was serious about wanting to know about local fishing practices they began to invite me on fishing trips and I soon found myself helping pulling nets into the boats. These trips proved excellent occasions to discuss such crucial issues as the rhythm of the tides, behaviour of the various fish species and local fishing techniques.

In October I decided to make a basic village census (see appendix VII) of the two communities including demographic, economic and social information on all the households as I thought that the people knew me well enough to trust my motives. The census was completed in December of 1993. I also collected a number of detailed case studies of particular households that I had become familiar with and which I thought were representative of the villages in general.

Besides the household survey and the case material, I tried to immerse myself into the social life of the communities as much as I could. During the course of the fieldwork I was invited to various social events like a wedding (*nika*), boat launching ceremonies (*puleh*), naming ceremonies (*khyn pree*), a funeral (*garn sop*), a circumcision ceremony (*khau sunat*), to various *nuri* ceremonies like *garn Maulid* (the remembrance of Prophet Mohammed's birthday), various festive occasions during the Ramadan and to countless prayer (*lamat*) sessions in the village prayer house (*surau*). Through these events I attempted

to gain qualitative data on village life. The major techniques involved were therefore participant observation, RRA-methodology (i.e. constructing village maps and seasonal fishing calendars), a village census and collecting case material.

In addition to the work in the villages themselves I was in close contact with a group of local environmentalists who were working on mangrove forest conservation in the region. They introduced me to the political problems involved with their environmental conservation work. The local environmentalists together with some Thai NGOs working in Southern Thailand held regular meetings and a couple of seminars which I attended. The first one was the "3rd Environmental Seminar on the South" held in Krabi. The seminar was organised by Thai NGOs working in the various parts of Southern Thailand. The seminar contained workshops on tourism, industrial development and mangrove forest protection. In April of 1994, NGO people of Southern Thailand held a seminar on conservation issues with local fishermen in one of the local villages. This proved an excellent venue to obtain comparative information on the problems Thai Muslim fishing communities face in Southern Thailand.

I also discussed fishing problems with some of the officials from the Krabi Fisheries Office. I visited the Provincial Administrative Office for statistical material about the province. In addition, I collected articles and news dealing with fishing and environmental problems in Southern Thailand from both English and Thai language newspapers.

At this point I wish to note that although I tried to balance my time in both of the villages, I ended up getting more involved in the affairs of Ban Ko Kwang than Ban Laem Pho. This was probably due to the fact that I knew more people personally in the former village than in the latter. Serendipity, although seldom acknowledged by anthropologists,

plays an important part in the fieldwork process. Getting to know the right people, being at the right place in the right time and personal preferences account very much to the outcome of fieldwork. Above all, although I had a detailed timetable of what to do where and when I had to be constantly prepared to discard my own plans according to the course of events in the two villages. I left Thailand in late May 1994.

1.5 ORGANISATION OF THE THESIS

This thesis is divided into four parts as follows: Part I (i.e. Chapter 2) examines the political economy of resource use in the Andaman Sea region. The objective of Part I is to place the research sites into a larger political-economic framework and to delineate the main problems that are found in this region. Part II focuses on the research sites. After setting the geographical and historical contexts, the economic organisation of the communities are unravelled in Chapter 3. Chapter 4 examines the coastal household and gender issues with case studies to illustrate the points made. Part III (i.e. Chapter 5) examines at length the sources and patterns of livelihood in the research sites. The various economic activities that villagers engage in are explored in detail and case studies are used to illustrate the arguments made. Part IV consists of chapters 6 and 7. The objective of these two chapters is to reflect on the dilemmas villagers face in confronting change and their responses. Chapter 6 outlines the collective meso-level responses of fishing communities against the conflicts over local resources examined in Part I. In addition, the role of external agencies, namely Thai non-governmental organisations, in these collective meso-level responses of local fishing communities is considered. Chapter 7 considers the position of contemporary maritime villagers in the modern capitalist world-economy. Chapter 8 concludes the thesis by summarising the main points made and by reflecting on the relationship between livelihoods and the environment in Krabi.

Incomplete as any anthropological work will always be, this is my version of life in Thai fishing villages as I have understood it. No doubt, someone else might have been interested in different issues to those I have written about. Everyone has their own way of telling a story, this is mine.

PART I: THE POLITICAL ECONOMY OF RESOURCE USE IN THE ANDAMAN SEA REGION OF SOUTHERN THAILAND

Conflicts over local natural resources between local people and various outside parties are phenomena that appear to be increasingly frequent in contemporary world (cf. Friedmann and Rangan 1993). A number of cases have been reported from a variety of settings in different parts of the world ranging from coastal areas (Diegues 1992) and rain forests (Melone 1993) to semiarid plains (Freudenberger 1993) and mountain valleys (Someshwar 1993). Generally speaking, all these cases narrate the stories about the protests and struggles over control, access and management of natural resources. The natural resources in question, be they rubber in Brazil in Melone´s (1993) case, gum arabic in Senegal Freudenberger´s (1993) case, wetlands in Brazil Diegues´ (1992) case or forest resources in India in Someshwar´s (1993) case, are being contested by outsiders who have little interest whether the local people will stand to lose the basis of their traditional livelihood or not. In short, in all these cases the ideology of sustainable use of local resources is contested by the ideology of short-term economic opportunism.

Part I examines the political economy of resource use in the Andaman Sea region of Southern Thailand. The objective is to understand the wider political-economic developments that are taking place in the region in which the maritime communities, which are the focus of this study, are placed. When I began to carry out my fieldwork in the maritime communities of Ban Laem Pho and Ban Ko Kwang (see Chapter 3, sections 3.1.1 and 3.1.2 for details of these communities) I soon became aware that there were a number of phenomena operating in the area that in many ways, which will be discussed later, on affected the lives of ordinary villagers. Above all, it became painfully clear to me that the villagers were by no means simple fishermen relying solely on marine fishing for their livelihoods, but that they were very much involved with the

wider world that had left an enduring mark in their life worlds.

Therefore, before I will turn to analyse in detail the livelihoods of villagers in the communities of Ban Laem Pho and Ban Ko Kwang it is necessary to sketch out the political economy of resource use in the Andaman Sea region below.

2. INDUSTRIAL FISHING AND NON-MARITIME SEABOARD DEVELOPMENTS

2.1 THE CONFLICT OVER FISH

This section deals with the conflict over diminishing fishery resources and the way such a trend affects the livelihood of the small-scale fishermen. First, the conflict between small-scale and large-scale fishing sectors over diminishing fishery resources is discussed. Second, the state policies over fishery development are reviewed. Third, in order to shed some light on the ongoing conflict over fishery resources, the nature of the sea as a common property resource is examined.

2.1.1 LARGE-SCALE VERSUS SMALL-SCALE FISHING SECTORS

Before discussing the conflict between the large-scale (*usahakam pramong*) and small-scale fishing (*chao pramong phyyn ban*) sectors in Phangnga Bay it is necessary to shed some light on the nature of marine fishing in Thailand.[1]

Marine fishing has been and still is a major source of livelihood for the coastal population in 24 coastal provinces in Thailand. Fish is the main staple food after rice and the major source of protein for the majority of the Thai

[1] The term *usahakam pramong* translates as fishing industry and the term *chao pramong phyyn ban* translates as artisanal fishermen indicating the differences in scale of operations (see below for details of the characteristics of each fishing sector).

population. The average annual per capita consumption of fish is approximately 22.5 kilograms (Piamsak 1988:327). Marine fishing and fish processing is very important to the national economy. For example, in 1990 fishery products represented 12 per cent of all exported commodities, whereas the corresponding figure for rice was only 8 percent (Handbook of Nations 1990, 306). In 1990 the total marine fish catch was 2,786,400 metric tons, placing Thailand among one of the world´s top ten producers of marine fish and by far the largest producer in Southeast Asia (Thailand 1992:172). That year the annual marine landing was composed of food fish (41.0%); shellfish (5.0 %); cephalopods (5.7 %); crabs (1.8%); others (0.6 %) and trash fish (41.4%) (Phasuk 1993:37).[2]

According to the 1985 Marine Fishery Census there were 57,551 households engaged in fishing activities (Thailand 1987a:53). Out of these households 46,005 or 79.9 percent of the total were engaged in small-scale fishing activities (Ibid.:41). By 1990 the number of fishing households had grown to 64,904 marking a total 12.7 percent increase (Thailand 1992a:39). However, the number of small-scale fishing had decreased to 42,422 or 65.4 percent. The growth was found in the large-scale fishing sector and especially coastal aquaculture. As shall be explained in a later section, most of the state policies on fisheries development is directed towards the development of the large-scale fishing sector, including coastal aquaculture.

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[2] These figures are official figures and represent the commercial large-scale fishing sector. The percentage of what is considered as trash fish is remarkably high. From the viewpoint of the small-scale fisherman there are few fish that belong to this category. Rather, they differentiate between commercially valuable fish species and fish species that may be caught for own consumption, but have little commercial value.

Geographically speaking, in 1985 the proportion of small-scale fishery establishments was the highest in Coastal Zone 5 (Andaman Sea or *thale andaman* including the provinces of Ranong, Phangnga, Phuket, Krabi, Trang and Satun) with 84,2 percent of the fishing households engaged in small-scale fishing, whereas the corresponding figure for Coastal Zone 2 (Inner Part of the Gulf of Thailand), which has the highest proportion of commercial fishing establishments was only 12,6 percent (Ibid.:41). In 1990 these figures were not calculated.

In the coastal Zone 5, there were 14,861 fishery establishments representing approximately 25 percent of the national total. Compared with the 1967 figure of 7661 fishery establishments, the 1985 figure represents a 94 percent increase (Thailand 1987b:37). Out of the 14,861 fishery establishments 84 were engaged in small-scale fishing activities. The highest concentration of large-scale fishing was found in Satun province, whereas subsistence fishing was predominant in Phangnga province, with the provinces of Krabi and Trang being in the middle of the two. The concentration of large-scale fishing in Satun can be explained by the fact that Satun is situated near the Malaysian border and most trawlers there operate in high seas. The Phangnga Bay with its numerous islands and vast mangrove forests borders Phangnga and Krabi provinces and therefore small-scale fishing is found in that area.

According to Russell and Poopetch (1990:174-185; cf. Panayotou et al 1985:55) commercial fishing in Thailand displays a highly dualistic structure, in which small-scale fishing households continue to coexist with large-scale fishing establishments. The latter are engaged in deep sea fishing, are capital intensive, yield a relatively high income for the crew and boat owners and provide fish for the export market, whereas the former are engaged in coastal fishing, are labour-intensive, require minimum mechanised power for their operations and provide fish for the domestic market.

This pattern, which can be found throughout the coastal provinces of Thailand, exists also in Phangnga Bay where the research sites are located. Although the large-scale fishing sector should operate on the high seas, it not only competes with the small-scale fishing sector for the same resources, but causes tremendous problems for the latter.[3] Here, time after time, trawlers encroach into the three kilometre coastal zone reserved by Thai law for the local small-scale fishermen. The most common complaint of the villagers in Ban Laem Pho and Ban Ko Kwang, and for that matter in other Phangnga Bay villages that I visited as well, was that the trawlers continuously encroach into the 3000 metre zone reserved by Thai law for the small-scale fishermen and occasionally into marine reserve areas. This problem has been reported by others in other areas of Thailand (see for example Nukul 1981; Thanwa 1988:19; Sanitsuda 1990:90, 101-102; Bangkok Post 16 September 1993 among others). A recent World Bank study reported that trawling has adverse effects on small-scale fishermen in Thailand and called for a political solution to the problem. The report pointed out that in Indonesia the government has been able to ban trawling in coastal waters effectively and attributes this success to the political importance of small-scale fishermen in that country (World Bank 1991:49, 52-53).

Recently, the United Nations Food and Agriculture Organisation warned that the depleted fishing grounds in Thailand and the larger ASEAN countries are turning into restless and volatile flash points (Bangkok Post 27 September 1993).

Some of the local villagers complain that if they do something wrong the strong arm of the law will punish them, but lets the big offenders go. An example of this, is the account given to me by Pong, a small-scale fisherman from Ban Ko Kwang. In the

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[3] High seas means the deep sea area. Usually no land can be sighted if a vessel is fishing in the high seas.

early 1980s he used to engage in dynamite fishing and was one day caught.[4] Upon returning from one fishing trip two fisheries officials were waiting to arrest him for breaking the law. After negotiations they let him go free in return for a 5,000 baht fine which the officials most likely pocketed themselves.[5] Pong accepts that what he used to do was wrong, but was driven to the deed due to dire economic circumstances as he had to find money to pay his debts and feed his family. A few years ago Pong together with some other village fishermen made a citizen´s arrest by boarding a trawler that had been encroaching into the village's fishing grounds and was destroying their squid traps. The police arrived and proceeded to take the boat and its crew into custody. In the meantime, the skipper had managed to radio the trawler´s owner for help. The owner, a local Chinese entrepreneur, contacted the local Fisheries Department head and secured the release of the boat and its crew for a 20,000 baht fine. The very next night, the trawler was fishing in the same area again.

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[4] Dynamite fishing means the use of explosives to stun the bottom dwelling fish and cause them to float to the surface where they are collected easily in nets.

[5] There are two basic categories of fines specified by the Fisheries Act. The first category specifies minor offenses in which case the fine does not exceed 1,000 baht. An example of a minor offense is fishing without a valid license. The second category specifies major offenses in which the fines range from 5,000 to 100,000 baht or imprisonment not exceeding one year or both. An example of a major offense is fishing using illegal methods such as dynamite (Sutinen, Yahaya and Vorawat 1992:147). For Pong the 5,000 baht fine was a considerable sum of money, whereas for the local Chinese entrepreneur the 20,000 baht fine was a negligible sum of money. Pong had no choice but to pay as he would have been arrested and put to jail and then his family would have been without a means of support and income. In order to pay the 5,000 baht fine he borrowed the money from his wife´s relatives and is still paying the sum back. It is highly unlikely that the Chinese entrepreneur would have been arrested if he would have not paid the fine, however, in order to continue operations it was in his interest to pay the fine.

The point here is that small-scale fishermen have so far been powerless against the large-scale fishing sector. The latter have the necessary connections and economic power to continue to violate the law, while the former can only stand aside and express frustrations. Many times, when I was discussing with fishermen both in Ban Laem Pho and Ban Ko Kwang, we could see the trawlers in the horizon trawling undisturbed.

Occasionally, violence breaks out and shoot-outs occur between the two parties. It is not an uncommon occurrence for bodies to float in the sea after such conflicts. Just two months before I arrived in Krabi, two unidentified bodies were found on the Ban Ko Kwang beach. In accordance with local Muslim customs the bodies were immediately buried in the village cemetery *(kubor)*. The villagers remarked that the bodies were most likely the result of a shoot-out between trawlers and small-scale fishermen a few kilometres north from Ban Ko Kwang.

2.1.2 STATE POLICIES ON FISHERIES DEVELOPMENT

In this section the policies of the state on fisheries development are examined. The National Economic and Social Development Plans (NESDP) regarding the objectives, policies and strategies for fisheries development in Thailand since 1962 shed light on the way fishing has been viewed by the state.

The objective of the First Plan (1962-66) was to increase the total marine fisheries production for domestic consumption. The trawl fishery for demersal resources (fishing for bottom dwelling species by using trawls) was supported by offering 5-8 year income tax exemptions and the reduction of import and export duties to investors. During this time the marine landing increased from 270.000 metric tons in 1962 to 635.000 metric tons in 1966. In the Second Plan (1967-71) the policies were same as in the First Plan. In the Third Plan (1972-76)

fisheries production for export was emphasised and the first signs for the development of coastal aquaculture in the form of shrimp farming was seen. In the Fourth Plan (1977-81) the need for conservation of marine natural resources and habitat was stated and the regulations to preserve them was set up. The Fourth Plan also expressed continued support for shrimp farming. The Fifth Plan (1982-86) expressed the need for the expansion of the Thai fishing fleet by obtaining fishing licences from neighbouring countries. By this time there were clear signs of the over-exploitation of demersal resources within 50 metre depth in the Gulf of Thailand. The Sixth Plan (1987-91) was much the same as the previous one. Over-fishing in the Gulf of Thailand had become a serious problem and the objective was to increase production of marine fish from outside Thai waters. The current Seventh Plan (1992-96) is very much the same like the previous one. The state supports fishing technology projects in the high seas by building new research vessels and co-operating with high seas fishing nations. Sustainable development in marine fisheries both in the Exclusive Economic Zone (EEZ) of Thailand and neighbouring countries and the high seas was mentioned for the first time.

The various NESDPs all state, that their objectives were to see the increase of production, the expansion of fishing fleets and the use of technology in high seas fishing. The need for conservation of marine natural resources is expressed, but few measures are taken to conserve the diminishing resources. The state policies regarding fisheries development is mostly about the large-scale fishing sector. Little mention is made about the needs of the small-scale fishing sector. Thailand, however, is by no means the only country that has given preference to the industrial development of fisheries, while letting the small-scale fishing sector to fend for itself. Kurien (1992) gives an account of fisheries development in Kerala state, India where a policy of modernisation of the large-scale fishing fleet led to a serious overfishing problem, which resulted in a violent

confrontation between small-scale and large-scale fishing sectors. As it became clear that trawler fishing was depleting fish stocks to an unsustainable degree, a campaign to ban the large boats from the coastal waters during the crucial spawning season was begun. In 1988 such a ban was enacted though it took almost ten years of organisation, agitation, hunger strikes and political manoeuvring to bring this about.

Platteau suggests that many developing states are preoccupied with maximising in the short run foreign exchange earnings from fish exports (Platteau 1989a & 1989b:592-597). What is gained in short term foreign exchange earnings is lost in long term sustainability of the fishing industry.

The policies of the state are well reflected in the activities of Krabi Fisheries Department. I had the opportunity to interview and accompany local fishery officials on a few occasions on their inspection trips in various parts of the province in the autumn of 1993. From the information obtained from the officials, it became clear that the development of coastal aquaculture in the form of the expansion of shrimp farming in the area is the first priority of the Fisheries Department. A new multimillion baht Krabi Coastal Aquaculture Station (*Sathani pholiang satnam chayfang krabi*) was completed in 1993 near Krabi town and the emphasis in the activities of the station is in the development of shrimp farming.[6] To a lesser extent, the possibilities for the expansion of oyster mariculture was researched. As mentioned earlier in a previous section, shrimp farming is a capital intensive activity that few ordinary fishing households can take part in except as casual labourers. As I accompanied some of the officials from the research station on their inspection trips to various shrimp ponds in different parts of the province it became

[6] This fits well with the plans of the Fisheries Department that has set up 22 such provincial centres along both the eastern and western coasts to control the quality of aquaculture products (Bangkok Post 12 December 1993).

clear to me that all the shrimp ponds we visited were owned by either outside capitalists and/or companies or by local entrepreneurs, who employed local villagers as casual labourers on the shrimp ponds. On these inspection trips the fisheries officials helped check the levels of chemical and antibiotic substances in prawn meat to ensure they are within the international standards and provided advice on shrimp cultivation to the pond overseers. When I enquired of the officials concerning what the Fisheries Department was doing for the small-scale fishing households, the officials answered that the shrimp farms provided employment opportunities for fishing households and the fishing households were encouraged to engage in shrimp farming and oyster mariculture themselves. In the 1991-1993 Krabi Economic Development Plan (*phaen pattana setthakit changwat krabi 2534-36*), the expansion of shrimp farming is encouraged and a fund is planned to be set up from which fishing households may borrow capital at low interest rates (*Phaen pattana setthakit changwat krabi 2534-36*:62). The technology used by small-scale fishermen is viewed by fisheries officials as backward and primitive. This is reflected in a statement by one of the fisheries officials: "*Phuak chaopramong phyynban chai khryangmyy laa samai, nayobai khong rau pen thi cha sanapsanun karn chai khryangmyy thansamai leuw ko plian aatchiip hai chaopramong phyynban han maa pholiang satnam phro karn pholiang satnam cha hai rakhaa dii leuw khwam charoen cha maa thyng muban chaopramong thi diewnii yang mai charoen*" (These small-scale fishermen use old fashioned technology, our policy is to encourage the use of more modern technology and changing of occupation, so that the fishermen will engage in aquaculture because aquaculture will yield better prices and development will be passed on to the yet undeveloped fishing villages). Development in the view of the Fisheries Department means the use of modern capital-intensive technology and the abandonment of the traditional ways.

Regarding marine fishing itself, a large new fish pier (*thaa rya huahin*) is under construction in Krabi harbour. The projected pier will be 100 metres long and 3 metres wide costing 3,000,000 baht and will be ready in 1995 (*Phaen pattana setthakit changwat krabi 2534-36*:95). The objective of the new fish pier is to improve efficiency in landing the catches from trawlers that are operating from Krabi harbour.

Regarding conservation measures, the Krabi Fisheries Department has banned the use of push-nets (*uan run*) in local waters, but little is done to implement the ban. It is acknowledged that the commercial trawlers cause immense damage to the coral reefs of Krabi (Ibid.:35). The Fisheries Department has expressed concern about the trawlers destroying marine life in the Andaman Sea (Bangkok Post 27 October 1993). Nevertheless, little is done to stop trawlers owned by local capitalists encroaching into the 3000 metres zone reserved for small-scale fishermen and fishing in marine life preservation areas. A marine police boat is anchored in Krabi harbour, but according to small-scale fishermen it has not been seen moving anywhere for years. Nonetheless, to the credit of the provincial governor, it must be said that when he took office in 1992, he attempted to crackdown on illegal trawling following a violent incident. Four state boats led by the governor were trying to round up about 10 fishing vessels in an area offshore from Tambon Khao Kham on the 3rd of February 1992 when one of the vessels fired at the state boats with an M-79 grenade launcher while fleeing (Bangkok Post 6 February 1992). However, the operations were discontinued after some time and the trawlers continue to fish illegally. On moonless nights the lights of the trawlers can be seen in the horizon and while some trawlers abide by the law and fish only in the high seas, many can be seen operating too close to the shore and north from Khao Haang Naak in the Marine Reserve area.

2.1.3 THE PROBLEM OF THE SEA AS A COMMON PROPERTY RESOURCE

The ocean is a common property resource. No one in particular owns the fish that swim in it, nor do the fish respect boundaries made by humans. In short, in the sea reigns the laissez faire ideology at its purest form. Those with the latest technology take most of the catch. Unfortunately, commercial fishing has become a game in which the winner takes it all. The result is what Hardin (1968:1244) terms "the tragedy of commons". The tragedy has both ecological and human dimensions since people are locked into a system in which they are destroying the resources on which their livelihood depends. With diminishing fish stocks various interest parties are bound to be in conflict over the right to utilise the existing resources (cf. Marr 1981:93-96).

On a regional scale, conflict over fishery resources is a serious problem in Southeast Asian waters. It is predicted that the conflict over the diminishing fishery resources in Southeast Asian waters will become an increasingly serious problem affecting the international relations of the concerned states (Nation 9 March 1994). Beside the encroachment problem there are overlapping claims to fishing territory in the region.

Thailand is currently experiencing problems over the fishery resources with her neighbours (cf. Valencia 1981:325-329). Thailand´s high seas fishing fleet is the largest in Southeast Asia and a considerable number of the vessels venture into foreign waters both with and without permission. In the western waters Thai vessels venture illegally into Burmese waters occasionally with violent confrontations, in which Thai vessels are fired upon by the Burmese Navy occur (see for example Bangkok Post 29 November 1993, Nation 5 March 1994.) In the eastern waters trouble occurs with the Cambodians (see for example, Bangkok Post 21 and 22 February 1994), the

Vietnamese (see for example Bangkok Post 26 October 1993) and the Indonesians (see for example Bangkok Post 3 March 1994).

At this point it is justified to ask what has all this to do with coastal small-scale fishing communities? The point is that a great many young men from these coastal fishing communities work as crew members on these trawlers that fish in the high seas and get into trouble with foreign governments. Many crew members die or are incarcerated in foreign jails for long periods of time. The boat owners attempt to secure the release of the boat and fishing equipment, but do not care about the fate of the crew as it is easy to find a new crew to replace the old one. Through these experiences international fishing disputes are brought into the consciousness of small-scale fishing communities. For example, one young man from Ban Laem Pho, who worked on a fishing vessel which was arrested in Vietnamese waters six years ago, is thought to be incarcerated there, as he has not returned home since that fateful trip. Another man told me of his experiences in an Indonesian jail where he spent three months for violating Indonesian waters near Sumatra. Luckily for him the boat owner secured the release of the crew by paying the required fines, something which is uncommon in the high seas fishing industry.

At the local level the problem of the sea and its natural resources as a common resource is equally problematic. As discussed in a previous section the problem of trawlers encroaching into the 3000 metre zone reserved for small-scale fishermen is causing disastrous consequences for the livelihood of the latter. Also the poaching and the use of illegal and destructive technology such as the push net (*uan run*) by other small-scale fishermen causes trouble and divisions within village society. Nonetheless, problems caused by fellow small-scale fishermen are relatively small compared with the problems caused by the trawlers. As will be pointed out in chapter 6 fishermen are able to apply social pressures

on fellow fishermen to stop using destructive technology. The problems caused by trawlers on the other hand necessitate meso-level collective action coupled with the help of concerned Thai non-governmental organisations as will be demonstrated in Chapter 6.

2.2 THE CONFLICT OVER MANGROVES

This section examines the conflict over mangrove forests between local fishing communities and various outside parties who have an interest in their exploitation.

The villagers use the forest without damage to its long term productivity. It is outsiders who have started to create problems. Either the mangrove forest is seen as a valuable commodity for its wood that can be used for making charcoal or furniture or the mangrove forest is seen as a useless piece of land that ought to be developed.

Mangrove forests along the shores of the Andaman Sea coast and throughout the coasts of Thailand have been exploited for charcoal industry for decades. The *Rhizophora* wood makes some of the best charcoal. Besides cutting wood for charcoal, shrimp farming is currently rapidly spreading over parts of Phangnga Bay's mangrove forests. There is also extensive conversion of mangroves into urban and industrial land uses. In addition, official 'reforestation schemes' contribute to the destruction of natural mangrove forests by depleting natural diversity. As Table 1 shows, since 1975 over 40 % of mangrove forest have been destroyed in this fashion.

TABLE 1. CHANGES IN THE MANGROVE FOREST AREA IN THAILAND (1975-1989)

Year	Mangrove forest area	1975 area = 100
1975	3,127.00	100.0
1979	2,873.08	91.9
1986	1,964.28	62.8
1989	1,805,59	57.7

(Source: Royal Forestry Department (RFD), Forestry Statistics 1990.)

2.2.1 THE CASE OF CHARCOAL INDUSTRY

Mangrove wood has been harvested in the area for decades. A large proportion of charcoal obtained from mangrove wood was exported to Penang and Singapore as recently as in the 1960s. Typically, a charcoal factory is given the rights to harvest a particular piece of forest for a certain period of time, usually for five years at a time. This practice is called *sampataan paa kongkaan*. In theory, the factory that harvests mangrove wood from a particular site, must replant the area with *Rhizophora* saplings. While most charcoal factories are interested in harvesting the wood, few have held an interest in replanting schemes as they are seen as an unnecessary nuisance and an useless loss of money and time to the factory. Therefore, vast areas of mangrove forest are cut, but few are replanted. According to the concerned parties such as the local environmentalists and NGO representatives (see Chapter 6 for a detailed discussion of the environmental movement in Krabi) the problem lies with the lack of enforcement on the part of concerned forest officials. A charcoal factory used to operate in the vicinity of Ban Laem Pho, one of my research sites, and the results of its actions can still be seen in the scarred landscape. Here, hectare upon hectare of former mangrove forest has been cut and no replanting of new *Rhizophora* saplings has taken place. As a result the land is slowly eroding and the sea will eventually take over.

Regarding the future of remaining mangrove forests, there is talk about banning the making of charcoal out of mangrove wood. However, there is a lot of money at stake in the charcoal industry and since the upland forests are also disappearing fast, the mangrove forests are seen as the last sources of raw material for the industry. The view of the environmentalists and NGO representatives on the issue is that the remaining areas of mangrove forest, which are very rich in species diversity, should be left untouched and only sites that have been previously cut should be harvested. The view of the villagers differ depending on whether they are employed as casual labourers by the charcoal factories or not. Those individuals who receive employment opportunities from cutting the mangroves think that the mangroves are a source of income to them and cutting is therefore justified or as one villager in Ban Laem Pho stated: "*man pen yangni ku ruu kan tat paa kongkaan mai dii tae waa ku tong haa goern liang khropkhrua ku dai wanla roi tae tong thamgarn nak*" (It is like this. I know cutting mangroves is not good, but I have to find money to look after my family. I get one hundred baht per day from cutting mangroves, but the work is hard.) It should be noted that most individuals involved in cutting mangroves belong to the poorer category of villagers. Others who are not involved in cutting mangroves as casual labourers view the destruction of mangroves as a loss as they utilise the mangroves for a variety of purposes as will be discussed in Chapter 5, section 5.1.1 on local marine environment.

2.2.2 THE CASE OF 'LAND DEVELOPMENT' (*KARN PATTANA THI DIN*)

An example of 'land development' is the building of a luxurious Krabi Maritime Hotel owned by the local MP Pichet Phanvichartkul. According to the environmentalists and NGO representatives this case epitomises the assault of the tourism industry against local natural resources. The multi-storey concrete blocks of the hotel perches high over the *paknam* mangroves near Ban Laem Pho, facing the scenic view of

limestone hills. The once muddy ground has been filled in to create a familiar landscape. In the place of a natural mangrove swamp is a swimming pool and a manicured garden of neatly trimmed lawns and artificial ponds. According to the environmentalists and NGO representatives, the most poignant problem with such 'land development' schemes is that only a few individuals benefit from such schemes while the average villagers only stand to lose. Their view is that there are enough sites of land where hotels and guest houses can be built and there is absolutely no reason to invade the mangrove forests.

2.2.3 THE CASE OF THE MANGROVE FOREST 'REHABILITATION' SCHEME (*KARN PLUK PA*)

In the following the case of the destruction of the Paknam mangrove forest by the forestry officials is presented. This is a case of forest management by local forestry officials and the responses of the local NGO representatives and concerned villagers from local fishing communities.

During the monsoon season of 1993 the Krabi Forestry Office, Mangrove Branch, received orders from the regional forestry headquarters in Nakhon Si Thammarat that the Paknam mangrove forest (the mangrove forest near Ban Laem Pho) was no longer classified as primary forest and it was to be reforested (*pluk pa*). Local forestry officials then hired some villagers, who were not locals, to cut a portion of the forest. The trunks of large *Xylocarpus* trees were ring-barked (removal of the cambium layer which distributes food and water supply to the whole plant), and trees were left to die before being logged. This operation was done in the heart of the forest so as not to attract unwanted attention from outsiders. A portion of the forest had then been cleared and replanted with the more common *Rhizophora* species in neat long rows, which is hardly comparable to the magnificent mixed community of natural forest. Many of the saplings did not grow very well, because

the natural canopy had been cleared and the hot sun rays penetrated straight down drying up the soil. This operation had been going on for a few months, when an English bird watcher visited the area and reported the matter to the local NGO representative.

The *paknam* mangrove swamp is renowned for its bird population and both foreign and Thai bird enthusiasts like to visit the area. A local fisherman, Bantai, earns his livelihood from escorting bird watchers to the swamp. The site has been identified as one of the richest concentrations of shorebirds in Southeast Asia including the famous Masked Finfoot (Jira and Round 1989:729). Also interestingly enough the site has been identified by specialists as containing good, species-rich mangrove with many tall trees and being one of the best areas of mangrove remaining on the entire west coast (Ibid.:729).

As it has turned out, the whole reforestation scheme in Paknam mangrove forest was not about reforestation at all, but rather about corruption and the misuse of state funds that the local officials with the collaboration of the Nakhon Si Thammarat Forest Zone, Mangrove Branch Head were carrying out for their own personal benefit.

The NGO started a consciousness raising program in the Krabi schools and managed to get the support of the local intellectuals to oppose the scheme. A well publicised visit by some 150 school children, conservationists and villagers´ representatives to the ´reforestation´ site in order to get first-hand information on the controversy surrounding the project was carried out on a Sunday afternoon and the wounded trees were nursed by spreading an anti-fungal mixture on the wounds. The event was televised and shown by TV 7 on the national evening news. Articles about the matter were written in *Thai Rath, Matichon* and Bangkok Post newspapers. As a result of the publicity campaign, on 24.9.1993 the

´reforestation´ scheme was ordered stopped by the Krabi Deputy Governor. He also ordered the suspension of similar programmes being undertaken at 10 sites in the province.

As a result of the public outcry, a public hearing convened by Krabi Governor was arranged in the provincial office on 28.9.1993. Altogether over 70 people took part in the hearing. In addition to the forestry officials, and the conservationists there were concerned members of the public and the press represented in the hearing. The governor opened the meeting and the local conservationists presented their case to him with the aid of a slide presentation. They pointed out that the area in which the officials had been operating was already declared a Forest Reserve area. The trees had been ring-stripped in order to deliberately kill them. Also some trees had been processed into wooden planks. The total area affected was 250 *rai* (40 ha) of mangrove forest. The officials had received 1600 baht per *rai* to ´reforest´ the area. As it turned out, they had only used 370 baht per *rai* for the ´reforestation´ in the form of wages for the cutters and the cost of *Rhizophora* saplings. The rest of the money the officials had apparently put into their own pockets. The officials were not directly accused of embezzlement, but no one was uncertain of the fate of the money.

After the presentation made by the conservationists the Nakhon Si Thammarat Forestry Zone, Mangrove Branch Head presented his view on the issue. In his presentation the Mangrove Branch Head argued that the site was in need of reforestation supported by a presentation of slides about mangrove reforestation projects from sites in Nakhon Si Thammarat province that were really in need of reforestation. The problem with his presentation, however, was that the Krabi case was not compatible with the Nakhon Si Thammarat case. He argued that the project was necessary as the money for it had already been allocated from the Forest Department budget and the money had to be therefore spent as planned. Despite the

fact that the atmosphere of the meeting was tense the governor who was supposed to chair the meeting was yawning and made it publicly known that the meeting irritated him.[7]

Some members of the public voiced their views on the matter. The situation from the viewpoint of the governor was embarrassing. The question in the air was, how come he did not know what was going on, even though he was responsible for all projects in the province?

The governor then attempted to secure a compromise by stating that since the money spent in the scheme had been part of the allocated budget it had to be spent. No one was accused and the matter was dropped. However, the contested 'reforestation scheme' was stopped for the time being.

This case is a prime example for showing the importance and effectiveness of NGO activity as an awareness and consciousness raiser. The concept of a public hearing in Thailand is new and was certainly the first used in Krabi (cf. Sunday Post 17 October 1993 on the use of public hearings in Thailand). The NGOs view the public hearings as means of extending democratic ideals to the common people. The public hearings are seen as a means of involving ordinary people in the decision making processes, in which the people can prevent what is viewed by the NGOs as the blatant mismanagement of public funds by corrupt officials.

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[7] An interesting side note is that in the spring of 1994 Bangkok Post reported that the Krabi governor was under investigation by Police Special Branch for alleged embezzlement of over 10 million baht while previously serving as deputy governor in Khonkaen province in Northeastern Thailand.

2.2.4 THE CASE OF AQUABUSINESS (*THURRAKIT BO KUNG*)

Aquaculture in the form of shrimp farming in the provinces of Krabi, Trang, Phangnga and Phuket has developed rapidly in the past decade. According to the 1990 Intercensal Survey of Marine Fishery in 1990 there were 5,624 *rai* or 899.84 hectares of land under aquaculture in Coastal Zone 5 (Krabi, Phangnga, Trang, Satun, Phuket, Ranong), when in 1985 the corresponding figure was only 3,305 *rai* 528.80 hectares, meaning a 70.2 percent increase (Thailand 1992a:50). The Fisheries Department as part of the Sixth National Economic and Social Development Plan (1987-91) introduced coastal aquaculture as an alternative source of livelihood for fishing villages facing problems in securing a livelihood. This policy was first implemented in the Inner Gulf of Thailand a decade ago, from where it spread to the south via the eastern coast.

According to the 1990 Intercensal Survey of Marine Fishery there were 1,321 coastal aquaculture establishments in Coastal Zone 5 compared to the corresponding figure of 964 in 1985 (Thailand 1992a:49). In 1992 Thailand produced 162,692 tons of shrimps compared with the 153,377 tons the year before with 400,000 to 500,000 *rai* (64,000 to 80,000 ha) of shrimp ponds currently in production (Bangkok Post 12 February 1994). Shrimp farming is a multimillion business with high economic stakes involved. In 1993 the head of Charoen Pokphand´s aquaculture business, the largest shrimp export company in Thailand, rightly predicted that exports of black tiger shrimp will reach 160,000 tons and could generate 40 billion baht ranking shrimp as Thailand´s third largest exported item behind garments and computer parts for that year (Bangkok Post 24 September 1993).

Giant tiger prawns (*Penaeus monodon*) or *kungkuladam* are bred in ponds. Most of the mature shrimp are sold to middlemen who export the shrimp to Japan, Singapore, U.S.A., Europe and other places thus connecting local fishing villages directly with the world-economy.

According to a World Bank report there is a strong entrepreneurial drive occurring in shrimp farming in Thailand (World Bank 1991:49). Shrimp farming is a very lucrative business. It is also a very capital intensive business that very few households can undertake. Therefore, it is outside capitalists who come to fishing villages to buy and/or rent land for setting up shrimp farms. The outside capitalists are referred to as *nai thun*. Local people receive employment opportunities from the capitalists in the form of day labourers digging ponds and looking after the shrimp ponds. The environmental costs are high and therefore the shrimp farming business has met opposition from local environmentalists and NGO´s and a few concerned villagers. Farms discharge pond water laced with fish feed into the sea. In addition, large quantities of oxygen are needed to break down the proteins leading to an oxygen depletion that damages marine life in the vicinity of shrimp ponds.

The shrimp pond (*bo kung*) measures around one *rai* (0.16 ha) and is 1.30 meters deep. The pond must be dug into the mangrove forest. The mangrove forest is chopped down and cleared with a bulldozer. After this a tractor is used to dig the pond and water gates used in regulating the water flow are installed. In addition, pumps are installed that are used to pump sea water into the ponds. Generators turn wheels attached to a ten meter long rod that churns the water helping to oxygenate the water that the shrimp need in order to survive. The shrimp larvae are bought from hatcheries at ten satang (0.10 baht) each. Around 1,000,000 shrimp are placed in one pond. In addition, shrimp meal is bought at 25 baht per kilogram. One breeding cycle requires several hundred

kilograms of shrimp meal. The shrimp mature in four months and are ready for sale. The shrimp sell at 150-180 baht per kilogram. Middlemen come to buy the whole catch which is then sent to processing plants and exported overseas. After this the pond must be emptied and cleaned of debris before another breeding cycle can be commenced. In one year two breeding cycles can be completed. The life-time of an average shrimp pond is around three to four years after which it must be abandoned.[8] This is mainly due to salinization of the soil. Nothing will grow on the site of an old shrimp pond. Extensive tracts of land along the eastern coast near Bangkok where shrimp farming first began are now useless wastelands.

The average investment in a shrimp farm containing two ponds (2 *rai* or 0.32 ha) is around 500,000 baht. After one breeding cycle the shrimp are sold at 700,000 baht, which gives a profit of 200,000 baht. This means that after a couple of breeding cycles the owner will begin making a profit and after a two to three years of shrimp farming he will have made a net profit of over 1,000,000 baht. With such enormous profits to be made, it is no wonder that those with the capital available will venture into the business. Ordinary fishing household have very limited chances of starting such ventures. Banks and private investors want land as a guarantee and the average fishing households seldom have the necessary guarantees available. Banks give better interest rates at 16/100 per year, but loans are harder to get. Private investors loan money more readily, but demand high interest rates at 3/100 per month. Shrimp farming is also a gamble. If everything goes well, the profit margins are very high. If, however, the

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[8] In some respects shrimp farming resembles swidden agriculture. However, unlike swidden agriculture which is basically ecologically a sustainable form of agriculture provided that the carrying capacity of the environment is not exceeded, shrimp farming is ecologically unsound as there is irreversible damage to the environment.

shrimp catch a disease the whole stock may get wiped away and everything is lost.

2.3 TOURISM

A new phenomenon that is rapidly spreading along the coast of Phangnga Bay is tourism. As Walton (1993) points out Thailand, among other ASEAN governments, is committed to tourism development for primarily the reason that tourism industry generates much needed revenue for the nation (cf. Hitchcock et al 1993:1-3, 13). In order to satisfy the needs of the tourism industry, new and ´unspoilt´ areas are continually sought for the purposes of tourism development. As a part of this ongoing process the advent of tourism began in the early 1980s when the tourist industry discovered the remarkable natural beauty of Phangnga Bay. Today both domestic and foreign tourists visit the province of Krabi.[9] However, the advent of mass tourism is still to be seen because the infrastructure of the province needs improvement.

Nevertheless, already the province is marketed as one of the ´last paradises´ in the world. One of the catchwords that is used in promoting Krabi is that the province today is like the island of Phuket a few decades ago before it was ´spoilt´ by mass tourism. While most of the foreign tourists have until now been backpackers, tour agencies in Europe and U.S.A. are selling package tours to the province. Therefore, it is very likely that the tourist industry will expand rapidly in the coming years.

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[9] In 1993 around 500,000 persons visited Krabi. Out of this figure around 75 % were Thai people and the rest foreign visitors. In the latter category there were people From Malaysia, Singapore, Taiwan and Japan. Although Western visitors are highly visible in the Thai context, they represent only a small minority of total number of tourists to the province. Both domestic and foreign tourists spent an average of 3.7 days in the province (*Hokarnkha changwat krabi raigarn karnthongthieo 2526:1*).

As Hitchcock et al (1993) note, tourism provides linkages with the wider world. These linkages are both economic and cultural. In the case of Krabi, tourism brings a lot of revenue to the province and many villages in the vicinity of tourist establishments benefit economically from it in terms of employment opportunities.[10] The new occupations generated by the tourism industry are discussed in more detail in Chapter 5.

2.4 SOUTHERN SEABOARD DEVELOPMENT PROJECT

The Southern Seaboard Development Project (SSDP) is handled by the National Economic and Social Development Board (NESDB) and was unveiled with great fanfare by the Ex-Prime Minister Chatichai Choonhavan's government in April 1989. Although portions of the project have been implemented much of the SSDP is still on the planning table.

Basically, the objective of the project was to create new industrial zones and spur more trade and business in the area of Upper South (*paktaitonbon*), especially in the provinces of Krabi and Surat Thani. A 197-kilometre *saphaan setthakit*

[10] The value of money that tourism generates in Krabi province is a staggering figure of 2,898,578,436 baht. The average visitor brings around 9,661,92 baht to the province. It is interesting to note that Thai visitors spent an average of 2,116 baht per person per day, while foreign visitors spent only 1,070 baht per person per day (*Hokarnkha changwat krabi raigarn karnthongthieo 2536:1,3*). This difference is most probably due to the fact that most Thai visitors are wealthy Bangkokians who like to spend a lot of money on their holidays by staying in the more expensive establishments and eat at more expensive restaurants. Most foreign visitors are backpackers who stay in cheap bungalows and eat in cheap coffee shops. It may be argued that backpackers also contribute more to the local economy directly as they tend to utilise the services of locally owned establishments. Upscale visitors on the other hand, tend to utilise services like hotels, tour agencies and restaurants owned by outside capitalists.

("land bridge", see below for details) would link the Andaman Sea with the Gulf of Thailand (*Ekasarn prakopkarn samana ryang phaphonyuttasat kornkarn soutensebod* 1990).

The idea was to turn the region into an international transshipment point for petroleum products and develop a petroleum-related industry there. Deep sea ports were to be constructed in Krabi on the western coast and Khanom in Surat Thani on the eastern coast. The locations were chosen for the depth of the continental shelf along both sides of the peninsula and because of the mostly flat land passage for pipeline construction. A two-way pipeline system is envisioned for linking the two complexes. Naphtha from the refineries would be used as feedstock for the petrochemical complex and the second pipeline would serve to transport crude oil products from the western to the eastern side. This pipeline would facilitate the transportation of crude oil from the Middle east to Japan (Bangkok Post 1989 Nov 21; *Nangsyyphim prachaa thurakit* 1989 Dec 13; *Thai Rath* 1989 Dec 23).

The scheme envisions a motorway, sea ports, a high-speed rail link, industrial estates and related infrastructure with the grand idea to eliminate the need for ships, on their way from the Indian Ocean to the Far East and Japan, to sail around the Malay Peninsula. The land bridge would shorten the shipping routes through Malacca, the Sunda, and the Lombok straits by between 800 and 2,800 kilometres (Bangkok Post 1989 Nov 21; *Naekhit buangton phaen paatana song thale paktai* 1990 Dec 11).

New economic zones would be established at Krabi and Khanom terminals and southern Thailand would have an opportunity to import raw materials and parts for processing and manufacture. Indigenous agricultural products such as rubber, palm oil, fruit and fisheries could then lead to the growth of agroindustries and other processing.

Trade and business related activities, trans-shipment and trans-packaging of containers, crude transfer and industrialisation would lead to further development of Krabi and Khanom, as new international, financial and business centres. In addition, the new urban growth areas would be established in the terminal areas. Such development would provide job opportunities and help distribute wealth associated with economic growth.

The project was estimated to cost around 20 billion US dollars of which the World Bank and Asian Development Bank would supply several hundred million dollars and the rest would be obtained from private investors (Bangkok Post 12 Nov 1990). 50,000 *rai* or 8000 hectares of land needed each at Krabi and Khanom as well as a total of 100,000 *rai* or 16,000 hectares offshore (Bangkok Post 4 Aug 1990).

In November of 1989 the Cabinet of Prime Minister Chatichai Choonhavan approved a loan of 1.5 million US dollars to be made from the World Bank to finance preparation of a master plan. The Cabinet then invited ten international engineering consultants to make their biddings for the master plan. In addition 15 million baht was set aside from the fiscal 1990 Central Fund to set up the Office of the Southern Seaboard Development Committee (Bangkok Post 1989 Nov 22).

In October 1990 an international consulting consortium comprising Bechtel (US), Nippon Koei (Japan), Asian Engineering Consultants (Thailand) and Southeast Asia Technology (Thailand) were appointed to conduct a feasibility study and master plan for the SSDP (Bangkok Post 9 Oct 1990). Claims were voiced by some European firms, who having lost to Bechtel in the bidding process, that hidden promises of bilateral US aid to supplement World Bank money allowed Bechtel to win the contract. National Economic and Social Development Board Secretary-General Phisit Pakkasem flatly

denied these charges saying: "Everything is on the table - no monkey business" (Bangkok Post 12 Nov 1990).

Between 1989 and 1990 many foreign countries including France, Kuwait, Saudi Arabia, Iran, Yugoslavia, Japan, South Korea, China, U.S.A. were urged to invest in the project (Bangkok Post 20 June 1989, 23 June 1989, 29 December 1989 and 23 March 1990). In the initial stages of the project Kuwait was the most vocal supporter of the project. They promised to help finance an oil refinery with a capacity of 300,000 barrels per day in Southern Thailand, and also an oil pipeline and storage facilities there (Bangkok Post 17 Aug 1990). However, international politics entered the scene in the form of the Persian Gulf War. The outbreak of the Persian Gulf in the end of 1990 hindered the plans as Kuwait - as one of the major investors in the project - was occupied by Iraq.

In the spring of 1991, national politics complicated the implementation of the project even further. General Suchinda usurped power from Prime Minister Chatichai Choonhavan in a violent and bloody coup. The SSDP was shelved temporarily by the provisional government of Anand that was set up after the coup failed. The government headed by Prime Minister Chuan Leekpai was elected into office after the provisional government of Anand. However, in its initial months the government was occupied with more pressing matters and the SSDP was of low priority until the beginning of 1993 when the SSDP was once more revived. Numerous seminars have been held on the issue and many associated plans have been added to the original SSDP that people of the South have lost track of what the project is all about. There is the "Three Land Bridges" proposed by fourth Army Region commander Lt Gen Kitti Rattanachaya, who proposed the building of two more land bridges between Satun and Songkhla and between Ranong and Chumpon (Sunday Post 1993 Aug 1). The latest plan is the Growth Triangle, which is an economic co-operation project

between Thailand, Malaysia and Indonesia (Bangkok Post 1993 Dec 18).

The original SSDP, which was probably a viable plan, has now grown into a grand plan that smacks of megalomania and there are doubts whether anything will ever be completed. On the other hand, it took the Eastern Seaboard Development Project (located in the Inner Gulf of Thailand) sixteen years to be completed, so anything can still happen. Currently, the unfavourable world-economy has also impeded the implementation of the SSDP.

One of the problems with the whole SSDP is that the priorities are not clear. The main cause is competition among southern provinces to persuade their MPs to bring money for the projects into their provinces. It has also become a selling point for political parties. The elimination or even modification of the project into something more practical and more easily realisable is difficult if not suicidal as the government of Prime Minister Chuan Leekpai has its stronghold in the South (Sunday Post 1993 Aug 1).

The SSDP has considerable relevance for coastal maritime villages like Ban Ko Kwang. One of the planned SSDP sites to be situated on the western coast is located where the present village of Ban Ko Kwang stands. The implications of the SSDP for the villagers of Ban Ko Kwang are multiple. Already, even though the SSDP is in its initial stages, there have been many signs of it. The gypsum pier, owned by Chien Wanit Gypsum Company, which is located at the northern extreme end of the village is fully operational. Here container ships from Japan, South Korea, Singapore, Egypt, and so on come to load gypsum that is used in construction industries. Approximately 500 meters from the gypsum pier, an oil pier is being constructed by the Petroleum Authority of Thailand. The construction of two oil tanks that will function as storage facilities has been already completed. In addition oil pipelines that would

transport oil from oil tankers to the storage facilities are under construction. Then there is a third pier owned by Chupana Company also known as Southern Port where gypsum is also currently loaded. The area where the piers are situated is called Laem Pong. A road is under construction that will connect Laem Pong with the highway 401 to Khanom in Surat Thani. More industrial sites near Laem Pong are planned in the future, but the details have not been as yet publicised. The way the above discussed developments have affected the lives of ordinary villagers in Ban Laem Pho and Ban Ko Kwang are explored in depth in Chapters 5 and 7.

Now that the macro-picture has been set up it is appropriate to focus more closely on the two maritime communities named Ban Laem Pho and Ban Ko Kwang and more specifically on the lives of ordinary contemporary villagers.

PART II THE PLACE AND PEOPLE

3. THE COMMUNITIES

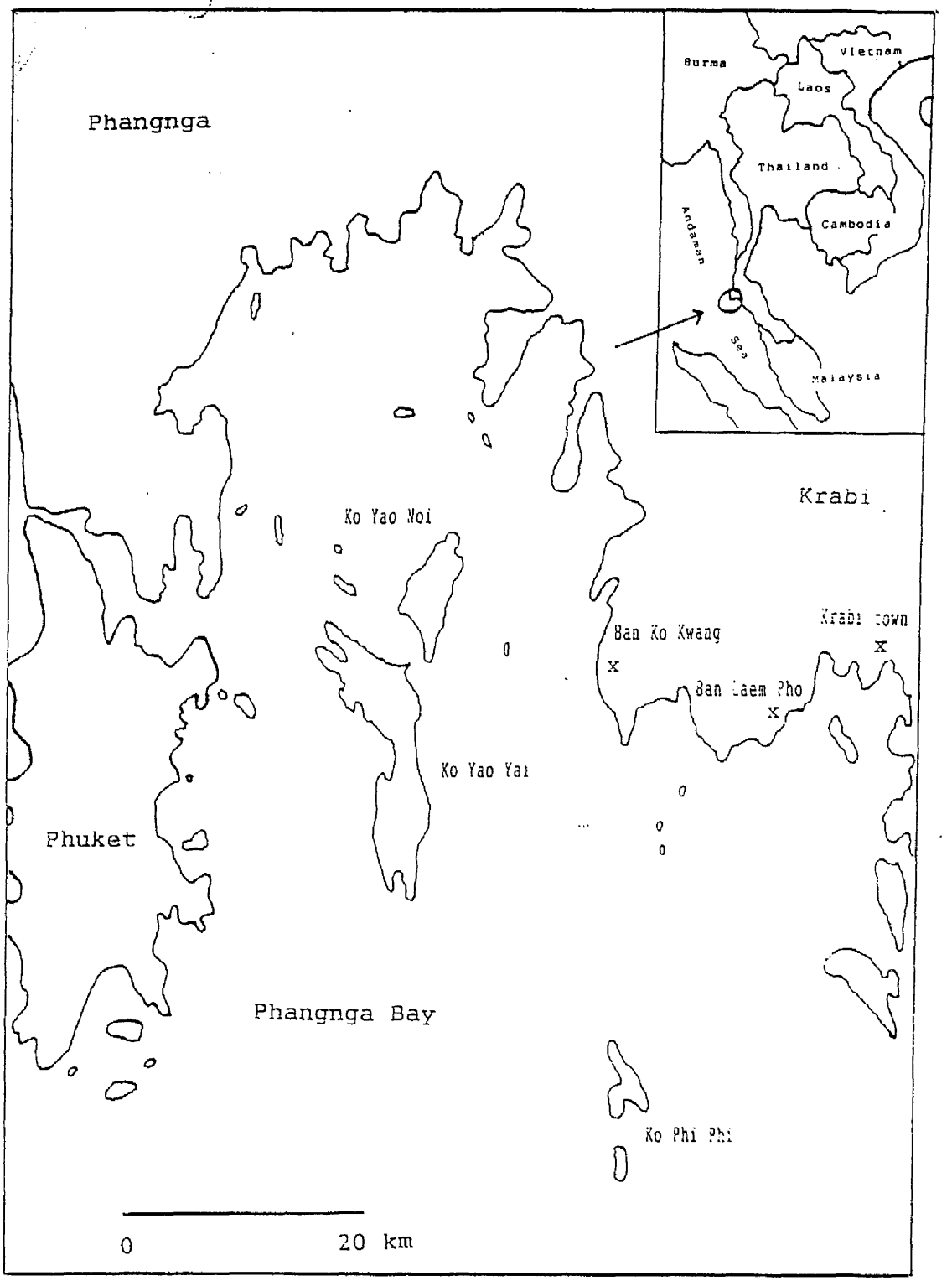
The objective of this chapter is to introduce the research sites and place them in geographical and historical context. Some of the questions that are addressed here include: In what kind of a setting are the coastal communities in Krabi found? What is the economic organisation of the research sites? What kind of links do the communities have with the past? How are the communities connected to the wider world?

3.1 THE SETTING

The Andaman Sea coast differs a lot from the rest of Thailand. The coast-line is rugged, remarkably spectacular, sometimes even surrealistic. Small fishing villages hidden away in emerald-blue bays alternate with soaring limestone cliffs covered with lush tropical vegetation. A major granite mountain range called the Tenasserim or Phuket range, runs in a north-south direction from Ranong, Phangnga and Krabi. In many parts along the Andaman Coast this mountain range extends all the way to the sea. Mountain streams join and form short rivers. These flow to the sea forming narrow alluvial flood plains at the river mouths. Most of the coast-line inside the outer islands consists of dense mangrove swamps thick with mudskippers. Here and there the monotony of the mangrove swamps is broken by long white beaches consisting of quartz and coral fragments. Near the coast-line there are numerous little islands and islets with stunning coral reefs.

Most of the human settlement is concentrated at the river mouths and the occasional sand beach. A few fishing villages can be found on the islands, but most of them are on the mainland coast.

MAP 1 PHANGNGA BAY



In the central part of this coast-line is Phangnga Bay, an oceanic wonderland. The bay extends north from Phuket Island eastward along the mainland coast of Phangnga province past six river systems south towards Krabi province where the research sites of Ban Laem Pho and Ban Ko Kwang are located (see Map 1).[1] Phangnga Bay is a huge relatively shallow bay fringed with extensive mangrove swamps and steep wooded limestone cliffs that rise occasionally up to 439 meters. These magnificent limestone mountains were created by glacial flow some ten millennia ago making the landscape look like the ethereal Chinese landscapes of Guilin. Hidden away in the jungle there are caves with dripping stalactites and festooned with prehistoric rock paintings indicating the presence of ancient human habitation sites. There are numerous limestone pillars and islets rising sheer from the ocean. Edible birds' nests are found on limestone outcroppings on the verge of collapse.[2] Most of these little islets are uninhabited, although local fishermen do build rough shelters where they can rest on long fishing trips. The two larger inhabited offshore islands are Ko Yao Yai and Ko Yao Noi.

Winding dirt roads, that are turned into mud during the monsoon season, skirt by the beaches leading to small fishing

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[1] Phuket has a well-developed tourist industry that Krabi officials, entrepreneurs and many villagers wish to emulate. The main reason is that development of tourism is seen as a major potential source of cash income for the province.

[2] The nests of the tiny, fork-tailed swiftlets (*Callocalia esculenta*) are edible and are considered to be a special delicacy with the price fetching over 15,000 baht per kilogram. In the past the bird's nests were exported as far as China as tribute. The Urak Lawoi (or Sea Gypsies as they are sometimes referred to) specialize in the collection of these nests. The nests are found in extremely difficult places on the ceilings of caves and special bamboo poles are used as ladders to reach the nests making the task very dangerous. The bird's nests in the Viking Cave on Phi Phi Ley island in Krabi province are a famous tourist attraction drawing annually thousands of both domestic and international visitors.

villages. Approaching the villages from the sea one can discern small huts and sheds among the orchards and coconut groves. Most huts are located near the beach and some are built on stilts on the water. The buildings materials used are simple. Roofs are made of thatch with a few patches of rusty corrugated iron. Wooden planks and bamboo sre used for the walls and the floor. Each hut has an indispensable veranda where many activities of the household take place. The huts are usually built in clusters forming a family compound. In each compound there is a communal well from where water for domestic chores is fetched and where members of the households will bathe each morning and evening. Each family compound has a small orchard where the villagers plant various kinds of yams and vegetables, chillies, herbs, pumpkins, cucumbers, sugar cane and mango and guava trees. A compound would not be complete without the rice barn. The ubiquitous goats, chickens and ducks roam freely around the village. However, unlike in Thai Buddhist villages, here there are no pigs around as the villagers are Thai Muslims.

The only building of some prominence in the village is the prayer house (*surau*) with its crescent and star emblem on the roof. A village coffee-shop is the place were men gather to exchange gossip. Moving to the beach, one encounters numerous fishing nets lying drying on bamboo racks in the sun. Salted fish and squid are spread on bamboo mats also to dry in the sun. Small fishing boats with rusty engines rest in water anchored a few meters from the beach, while older boats lie overturned waiting to be repaired under Casuarina trees. A shed used for storing fishing equipment is built on the fringe of the beach where the waves can not reach it.

Going inland beyond the coastal fishing villages, lush tropical rainforest interspersed with the patchwork quilt of rice fields covers the landscape. Small rubber plantations with stately rows of rubber trees bring contrasting order showing human presence in the wilderness.

Phangnga Bay area has a tropical monsoon climate with an average annual rainfall of 2,379.3 mm, most of which falls during the southwest monsoon, from May to October. The wettest month is usually September or October (361.0 and 348.6 mm of rainfall respectively) and the driest month is usually February (24.9 mm) (Jira and Round 1989:728). The relative humidity ranges from 68 percent in February to 81 percent in October. The average daily temperature is around 28.1 Celsius.

The primary feature of the locale where the research sites are situated is the large crescent-shaped bay called Ao Krabi (Krabi Bay), which is bordered by vertical massifs of wooded limestone rock and white powdery sand beaches. Here majestic white-bellied sea eagles and ospreys soar over the coast in search of fish. The waters are emerald green with crystal clear visibility.

Magnificent coral reefs provide habitat for a wide variety of marine life forms, including many brightly coloured fish. Crab-eating macaques, langurs, fishing cats and civets come out from the forest searching for food on the beach, where huge monitor lizards bask in the sun.

The coast-line near Krabi town consists mainly of mangrove swamps, although at some points white sandy beaches with *Melaleuca* woodland lining the shore can be found. Here the intertidal mud flats extend up to two kilometres offshore at low tide exposing rocks and coral where villagers gather crustaceans and other marine animals.

Before focusing on the research sites it is necessary to give some background information on the economic organisation of Krabi district.[3] The agricultural wealth in Krabi district is based on rubber and oil palm plantations.[4] Besides rubber and oil palm plantations, coffee, cashew nuts, coconuts and pineapple are grown in the area. Rice production is geared for own consumption and most of the rice consumed in the province must be imported from other areas of Thailand. Fishing is the most significant source of income for the majority of households in coastal villages.[5] The marine catch represents approximately 75 percent of all marine produce, with the remaining 25 percent coming from aquaculture.

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[3] Krabi district (Amphoe Muang Krabi) is the largest district in the province with a total of over 1,100,000 square kilometres and a population of around 148,000 people.

[4] In 1992 there were 349,359 *rai* (1 *rai* = 0.16 ha) under oil palm cultivation producing a total of 1,025,333,40 tons of raw palm oil at approximately 2.6 tons per *rai*. The average price per raw palm oil kilogram was 2.45 baht. Most of the palm oil plantations belong to companies based in Bangkok. There are very few individual households that own palm oil plantations. This is primarily due to the large amounts of capital needed for the operations. However, rubber plantations are a different story. Most of the 49,560 tons of raw rubber produced in Krabi in 1992 came from plantations owned by individual households. In that year there were 15,263 households with rubber plantations with sizes of less than 16 *rai* and only 4,924 households with plantations of sizes between 16 and 50 *rai*. The households with less than 16 *rai* earned less than 24,000 baht per year (*Hokarnkha changwat krabi raigarn prachampi 2535:59,61; Phaenpattana setthakit changwat krabi 2535-2536:63)*.

[5] The total marine catch for 1992 was 12,320,930 kilograms with a total value of 296,275,400 baht (*Hokarnkha changwat krabi raigarn karnkha plaa 2536:13*). This figure includes only the value of the catch landed by commercial operators as there is little possibility of documenting the catch landed by small-scale operators in the province. Also, the figure includes not only the value of fish, but also that of crustaceans and molluscs.

The fishing sector displays a dualistic structure, in which small-scale fishing households continue to co-exist with large-scale fishing establishments. The latter are engaged in deep sea fishing, are capital intensive, yield a high income for the crew and boat owners and provide mainly for the export market, whereas the former are engaged in coastal fishing, are labour-intensive, require minimum mechanised power for their operations and provide mainly for the domestic market. The relationship between the two groups, as discussed in the previous chapter, is problematic and potentially explosive.

Industry is relatively underdeveloped, although there are a few oil palm refineries in the area. Lignite has been mined in small quantities for some time near Krabi town. The Southern Seaboard Development Project has planned to attract investment into the area and develop the industrial base.

Lastly, tourism is a booming sector that has developed into the most important industry in the past few years with over 500,000 persons visiting the province in 1991. The natural beauty of the province that attracts the tourists to the area has not gone unnoticed by investors from Bangkok. In Krabi, town guest houses, tour agencies, coffee-shops and restaurants appear like mushrooms after rain.[6]

Interestingly enough, there is very little migration from the villages to the cities in the region. The economic situation does not necessitate villagers to seek employment in Bangkok or other large cities. In fact, Krabi, which belongs to the greater Phuket area, is a destination for labourers from North-east and Northern Thailand. According to the 1990 population and housing census there were 11,178 persons who migrated to the province from other regions of Thailand

[6] In 1992 there were 96 establishments with a total of 3,159 rooms catering to both domestic and international tourists (*Hokarnkha changwat krabi raigarn prachampi 2535:67*).

(Thailand 1992b:29). The booming tourist industry draws people from these regions in search of employment. Many of labourers, who work at the gypsum pier in Ban Ko Kwang originate from these areas.

3.1.1 BAN LAEM PHO AND BAN KO KWANG

The topography of the area near the villages of Ban Laem Pho and Ban Ko Kwang imposes strict limitations on land use. Limestone mountains are scattered throughout the area. The distance between the two villages is approximately fifteen kilometres by land. In between the two villages, there are seven other coastal villages. Limestone mountains like Khao Ao Nang (353 m), Khao Khlong Haeng (224 m) and Khao Khuan Kan (276 m) separate the broad plain in which Ban Laem Pho is situated from the hilly land where Ban Ko Kwang stands.

The vegetation in the area consists largely of Melaleuca woodland which lines the shores of Krabi bay. The main types of agriculture are mostly rubber and oil palm plantations, coconut groves and jack fruit orchards. A few rice fields can be found in wet low lands. Pineapple and papaya plantations exist on drier land. Dense mangrove swamps with a high preponderance of *Rhizophora spp.* are found near the river entrance (*Pak Nam*) of Krabi town. Canals (*khlongs*) meander through the land extending at points up to five or six kilometres in length. The largest *khlongs* include Khlong Muang, Khlong Son, and Khlong Chilat.

Numerous fairly large islands are located in the Krabi bay, the largest being Ko Daeng, Ko Dam Hok, Ko Dam Khwan near the shore, and Ko Si-Bo-Ya, Ko Cham, Ko Yung, Ko Mai Phai, Ko Phi Phi further away. In addition there are numerous small islets in the bay. Coral reefs with a high level of species diversity surround most of these islands and islets. The depth of the sea in the area is fairly shallow, being only ten to twenty meters deep.

Ban Laem Pho is situated on a cape surrounded by water from both sides (see Map 1). To the north and west there is a vast dense mangrove swamp which serves the entire population as an important source of fuel, molluscs and fish. At the other side of this vast swamp lies the river mouth (*Pak Nam*) of Krabi river (*Mae Nam Krabi*) which leads to Krabi town. To the south is the Krabi Bay which at this point is very shallow and full of large sand bars where numerous fishing stakes are set up by the local fishermen. To the east is the flat plain where the rubber and oil plantations are situated. Here also lies the neighbouring village of Ban Ao Nam Mao.

Ban Laem Pho is a relatively large village, approximately four kilometres in length and one kilometre in width, being approximately four square kilometres in total. A dirt road leads through the village splitting the area into two halves. Houses are spread throughout the village along the road. Paddy fields, coconut groves, agroforests, shrub and a few rubber plantations mark the landscape. At the end of the village road, near the mangrove swamp, large shrimp ponds are dug. The fish pier, where the village fishing boats and fishing equipment are kept, lies near the village entrance. Also, here is the village cemetery (*kubor*). There are two prayer houses (*surau*) in the village. The first one is opposite the village coffee-shop, one kilometre away from the fish pier. The other one is near the village school in the middle of the village. One of the more interesting places in the village is the fossil shell beach(*susaan hoi*), also located near the fish pier.[7] This is also the place where the villagers have set up

[7] The site is composed of limestone slabs flecked with thousands of snail shells that date back some 75 million years. It is thought that in that period the area around Ban Laem Pho used to be a swamp. In later periods many species of shells appeared and occupied the swamp. When sea water rose, silicic matter from the sea water cemented them together forming rock-like slabs. Interestingly enough, there are only three such sites in the world, Susaan hoi being one of them.

souvenir stalls for tourists visiting the rare geological phenomena. Also here can be found the very old sacred Pho tree, which gives the name for the village - Ban Laem Pho, the village of the Pho Tree Cape. A recently paved road leads from the village entrance to Krabi town, some 20 kilometres away.

Ban Ko Kwang is a somewhat smaller village located at the foot of Khao Haang Naak, a 489 m high limestone mountain (see Map 1). Most of the village is situated on a narrow strip of land between Khao Haang Naak and the sea. Ban Ko Kwang is approximately five kilometres in length, but only 400-600 meters in width. The houses are built on both sides of the village beach road. Two streams, Khlong Laem Pong and Khlong Ko Kwang, flow from Khao Haang Naak to the sea. Fishing boats are moored at the mouths of these streams, although at times they are anchored near the beach. Most of the available land is devoted to coconut plantations, household and agroforestry. To the east, on the slopes of Khao Haang Naak, there are rubber and oil palm plantations. To the south, at the entrance of the village is the island of Ko Kwang which is connected to mainland by a narrow strip of sand. Ko Kwang means Deer Island. Some of the elder villagers remember a time when deer used to congregate on the island at certain times of the year; thus the village name - Ban Ko Kwang or the Deer Island Village. Near this point lies the village cemetery (*kubor*). The prayer house (*surau*) is located in the middle of the village. At the northern extreme of the village, lies the Gypsum Pier and the site of the planned Southern Seaboard project. Here, there are three piers that extend almost half a kilometre to the sea. Huge foreign cargo ships come to load gypsum here.[8] Near these constructions is also a camp built for the labourers who work in the site.

[8] Gypsum is a mineral consisting of hydrated calcium sulphate that occurs in sedimentary rocks and clay and is used principally in making plasters and cements.

The village of Ban Ko Kwang is situated some twenty kilometres north along the coast from Ban Laem Pho. Here, there are no mangrove swamps, but instead a sandy beach where heavy surf crashes on the beach. Unlike in Ban Laem Pho, here the sea-bed shelves fairly steeply to some twenty meters immediately off shore making the site one of the deepest places along the Andaman Sea coast. By the edge of the beach stretch smooth flat banks of crystalline sand and by the right side runs a fringe of Casuarina trees interspersed with coconut palms. Intermingled with the sand and gravel are numerous shells of various sizes and colours. Little crabs run on the beach descending to their holes when shorebirds birds approach them. The population base of the villages is as follows: In Ban Laem Pho the total population is 949 persons with 493 males and 456 females and in Ban Ko Kwang 451 persons with 230 males and 221 females.[9] The age structure of both villages follows the typical pyramid pattern of developing societies. There is a large number of children and few old people over the age of seventy.

[9] The total population of Krabi province in 1992 was 307,092 with 158,712 males and 148,380 females. The population density was 974 per square kilometre.

3.1.2 ECONOMIC ORGANISATION OF THE COMMUNITIES

The entire range of the main sources of household income in Ban Laem Pho and Ban Ko Kwang is listed in Table 2.

TABLE 2. MAIN SOURCES OF HOUSEHOLD INCOME IN BAN LAEM PHO AND BAN KO KWANG

	BAN LAEM PHO	BAN KO KWANG
FISHING	38	14
FISHING AND AGRICULTURE	10	28
FISH DEALING	5	3
AGRICULTURE	21	6
RETIRED	19	8
PUBLIC SERVICE	6	4
WAGE LABOUR	34	17
TRADING	16	4
OTHERS	2	2
TOTAL	151	86

(These figures are based on data collected as part of a general household census conducted in October-December 1993.)

If we look at the Ban Ko Kwang figures first, in that village only 14 households declared fishing to be their main source of income. However, such a figure does not reveal the entire truth. 28 households declared both fishing and agriculture to be their main source of income. Fishing is a seasonal occupation and those who own rubber plantations or coconut orchards supplement their income from rubber production or sale of coconuts. This is especially true during the monsoon season, when the sea is rough and fishing is not good. With three households declaring fish dealing as the main source of income, 52 percent of the households are engaged in fishing in one form or another. Those solely relying on agriculture were the larger rubber plantation owners with plantation sizes of over 16 *rai* (2.56 ha). There were 17 households, representing 20 percent of the total, who declared wage labour to be their major source of income. These include labourers at the gypsum pier and a few who work cutting mangrove wood for charcoal factories near Krabi town.

A very important thing to note is that almost all households who declared some other occupation than fishing as their main source of income have engaged in that activity some time before. The men in such households do go out occasionally on fishing trips with their friends and relatives who are full-time fishermen. Also, **some** of those who currently engage in wage labour will most probably return to fishing at some time in the future. It is a common pattern for the younger men to try their luck in some other occupation before settling down and continuing fishing. It appears that fishing is an activity to which it is relatively easy to return if the necessary skills have not been lost (cf. McCay 1981:7). Having said that, such a pattern is definitely very strongly contested as wage labour and various forms of non-fishing self-employment are increasing.

In Ban Laem Pho a third of the households engage in fishing as a full-time occupation although, as in Ban Ko Kwang, there are those who supplement their income from agricultural activities. 14 percent of the households derived their income solely from agriculture. These include households who have rubber and pineapple plantations and some who have fairly large coconut orchards. There is a substantial number of households that declared wage labour to be their main source of income. Due to the vicinity of the vast mangrove swamp, a number of men work cutting mangrove wood for the charcoal factories operating along the coast. The number of traders is much higher in Ban Laem Pho than in Ban Ko Kwang and this can be accounted for by the presence of the "Fossil Shell Beach", where women have set up souvenir stalls. These women bring home a large income and thus gain even more economic muscle than the women in average fishing households do.(see Chapter 5 for a detailed analysis of the sources and patterns of livelihoods in the two communities).

3.2 LOCAL HISTORY

In the following I shall present an overview of the local history of the region in which the research sites are located. The purpose of this section is to place the communities within a larger historical framework that enables one to appreciate the complex connections and links between local and regional history.

3.2.1 DEBRIS OF AN ANCIENT CIVILISATION

The coastal fishing villages along the Andaman Sea coast, like Ban Laem Pho and Ban Ko Kwang, have a history of contact with the outside world by sea. Although the social history of an individual fishing village may only be a few generations old, in general thick layers of history can be found along the coast.

In the past, the Andaman Sea coast served as a gateway to the East for ancient Asian civilisations. Evidence for this can be found in ancient objects, antiques and traces of ports established for the purpose of sea trade, including the routes used in travelling from the western portion of peninsular Thailand to the east. Most communities were built on the mouths of rivers that served as waterways (*khlongs*) from the west to the east. These khlongs were trade routes and the villages on the entrances of these trade routes served as entrepots and saw the comings and goings of people of many races and religions.

There is evidence of the strategic importance of the peninsula for early Southeast Asian history.

By the third century A.D., Chinese records indicate that several small coastal settlements had developed into large towns. Such settlements could be found on both the east and west coasts. On the east coast, settlements concentrated in

four areas: around the Bay of Bandon, from Si Chon to Nakhon Si Thammarat, in Satingpra Peninsula and Pattani area. On the west coast settlements could be found at Kuan Luk Pat in Krabi and Takuapa in Phangnga. The settlements on both sides of the peninsula were involved in a trading relationship with each other (O´Connor 1986:1-10). In addition, the settlements were part of a great web of regional and international sea-borne Asian trade.

A set of sailing and trading patterns linked the west coast ports with India, Sri Lanka and Sumatra (see Boeles 1966:221-227). For example, archaeological evidence indicates that Takuapa in Phangnga was a significant entrepot and tin-producing area from the seventh through the tenth centuries (Bourke 1905:49-62).

To the ancient world the Malay peninsula was known as *Suwannaphouma* or the Golden Peninsula. Ptolemy´s *Further India* mentions the *Chesonesus Aurea* where great wealth could be found (Clifford 1990:10). The vague information concerning it, served to give *Suwannaphouma* a halo of mystery that would attract adventurers. While no doubt, history saw various adventurers and vagabonds trying their luck in the region, perhaps more than others Indian adventurers and merchants left an enduring mark on the history of the region. Looking for fortune and wealth, they settled into communities along both sides of the peninsula influencing the local population in many ways. In many places where the Indians settled they became administrators and religious specialists (cf. Gerini 1905:22-24; Klin 1993:34).

By the thirteenth century Nakhon Si Thammarat on the east coast had grown into a thriving local ceremonial and administrative centre. Due to its geographical location and a suitable environment, the city developed into a major power centre. O´Connor thinks that the area around Nakhon Si Thammarat was the early city-state of Tambarlinga (O´Connor

1975:135; cf. Klin 1993:35). Mon, Burmese, Khmer, Malay and south Indian rulers sought to control the international maritime trade by establishing their power there (Wyatt 1982: 51). Its sphere of influence extended over the whole region including twelve other towns. Already in those times, the *Chao Muang* of Nakhon Si Thammarat extracted tribute (*kryangrachabonakarn)* from the regions under its control.[10] Tribute included rattan, resin, herbs, bark, scented wood, ivory and various other forest products.[11] It also became the major centre for the diffusion of Theravada Buddhism.[12]

As mentioned earlier, rivers connected the two coasts with each other. Klin gives the example of Khlong Thom - Thung Yai -Prasaeng route as an ancient route used by Indian traders travelling across the peninsula (Klin 1988:58). The traces of ancient communities along this route include Khuan Luk Pat and Chawa Prab Hill. Artifacts found in Khuan Luk Pat site, Khlong Thom District, include inscribed seals dated from the 5th to 7th century A.D., seals depicting Roman deities, various beads and a bronze mirror decorated with Chinese motifs of the Han Dynasty (Amara et al 1987:12). The site of Khuan Luk Pat had relationships with southern India as well as the Arab world and also Oc-eo in southern Vietnam. Mayuri writes of some glass seals and golden ornaments found in the site that have been written with characters similar to south India while the language is Sanskrit indicating a trading relationship with

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[10] The *muang* was the primary unit of social and political organisation above the simple village level. In many cases this was a town or a city. *Chao* means lord. Thus, the *Chao Muang* meant the ruler or lord of the town or city. Tambiah gives *chao muang* the meaning of the "prince of the realm" (Tambiah 1976:115).

[11] This kind of political relationship in which the vassals paid tribute to their overlords who in turn paid tribute to their overlords and so on, appears to be a typical feature of early Tai states and in fact much of Southeast Asia.

[12] See Boribal and Griswold 1950:70-90 on the art of Nakhon Si Thammarat in the Ayutthya period.

India. Also she mentions black opaque beads bearing the motif of a bird similar to those found in Oc-eo (Mayuri 1984:137). It was clearly located on a maritime trade route which connected Southeast Asia with southern India.

According to Klin, one travelled from Klong Thom on foot through Lum Tup to embark at Khlong Sin Pun which joins the Ta Pi river to Prasaeng and to Ban Don Bay, Suratthani in the Gulf of Siam. The journey took over fifteen days and nights and both elephants and boats had to be used in order to complete the trip (Klin 1988:58). Later, local people who settled in the area continued to use the channels as transportation routes until they were abandoned and the jungle took over.

Interestingly enough, few large settlements from the ancient past remain on the west coast. In the past the sites of the settlements were often changed. New locations were sought due to cholera epidemics (*ahiwaatakkarok*) that wrought havoc in the small communities. Local history mentions the bubonic plague (*kalarok*) as a reason for abandoning the community of Mae Nam Khirirat Nikhom and moving to Krabi town. Also warfare caused the whole population of communities under attack to flee to new locations.

Gradually, the bulk of the population moved from the west to the east coast. The eastern coast is more hospitable as there are large alluvial plains where wet-rice agriculture can be practised and can therefore support a larger population than the west coast ever could have done. Also, in the east coast the cities were safer from enemy attacks than on the west coast.

3.2.2 SKETCHES OF PHANGNGA BAY IN PAST TIMES

In the following I will present a brief sketch of the history of Phangnga Bay region including comments regarding the area given by various travellers who visited the area on their travels in Southeast Asia.

The city-state of Nakhon Si Thammarat grew into a powerful entity and extended its influence over much of the Malay Peninsula, in the thirteenth century extending its influence as far south as Pahang (Wyatt 1982:51,56). At this time most of the Phangnga Bay region was very sparsely populated, save for the occasional fishing village at river mouths. Immediately beyond the beach lay a vast wilderness where tigers and wild elephants roamed.

When Ayutthya rose into power in the Central Plain in the latter part of the fourteenth century there were several power struggles over the control of the south and over Nakhon Si Thammarat. Nevertheless, by the sixteenth century Nakhon Si Thammarat was subdued under the control of Ayutthya and became its vassal sending regular tribute to the capital (Klin 1993: 35-36; cf. Wyatt 1982:110).

Many foreign travellers passed the region on their travels in Southeast Asia and below are some of the comments and remarks they made. The Phangnga Bay area and the Andaman Sea coast in general was sparsely populated. In addition, the local population had a fierce reputation in the eyes of Europeans. Consider the statement made by Captain Alexander Hamilton who visited the region in between 1700 and 1719:

> The next place of any commerce on this coast (West coast of the Malay Peninsula) is the island of Jonkceyloan it lies in the dominions of the King of Siam. ...there are several good harbours for shipping, but the seacoast is very thin of inhabitants, because there are great number of freebooters, called salleiters, who inhabit islands along the sea coast, and they both rob, and take people for slaves, and transport them for Atcheen, and there make sale of them, and Jonkceyloan often feels the weight of their depredations (Hamilton quoted in Gerini 1905:45).[13]

Dr Koenig, a prominent Danish botanist and pupil of Linnaeus, who made the first survey of the flora and fauna in Phangnga Bay in 1779 also thought this about the locals:

"May 6 1779. I went to an island which lay one mile northward from our ship. My researches were soon interrupted by the arrival of seven or eight Malay praus whose neighbourhood is always dangerous for all Europeans" (Koenig in Gerini 1905:49-50).[14]

Although perhaps exaggerated, there is some truth to the fact that some of islanders were pirates (*chon salat*) who used to rob sailing ships passing the region. The fact that there are hundreds of little islands in Phangnga Bay meant that there were plenty of places were the pirates could hide from officials. Interestingly enough, my other research site, Ban Ko Kwang, was founded five generations ago by pirates escaping officialdom.

Of course not all of the people in the region were pirates. Most were ordinary villagers who lead normal quiet lives. A description of the local people by a Thai monk who visited the area between 1851 and 1854 gives a rather different picture of the nature of the local population than the Europeans did:

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[13] Junkceylon was the former name of the island of Phuket.

[14] The *praus* referred to here by Dr Koenig are known in Thai as *rya sampau* and they are small vessels equipped with sails.

> The islanders of C´halang love to dress tidily and tastefully. Handsomely built damsels are in evidence; but, awestruck, I dare not glance upon them. For I am deeply afraid of their subtle philtres and craftily concocted charms that so easily lead to perdition. I prefer to refrain from all intercourse or meddling with them, as I think this would bring shame upon myself. The local beauties chatter in the quaint jargon of the country people: and their argot is not always understood. ...C´halang women are, in fact, exceedingly clever talkers: they excel in the art of charming the ear and netting partners. Once they make love to a lad, it is done with him: he is inextricably inveigled. Such is the fate that overtook many youngsters from the central provinces (Nai Mi quoted in Gerini 1905:110-112).

Not only were the women charming, but the people were industrious.

"People are thriving and cheerful: they cultivate orchards and paddy fields, plant various kinds of yams and vegetables, large pumpkins, cucumbers and watermelons, sweet sugar cane and sugar palms, as well as orange-trees bearing excellent fruit" (Nai Mi in Gerini 1905:114).

The language spoken in the area is a variant of Thai called *Pak Tai*, that may sound incomprehensible for the person not acquainted with the dialect. In addition the local language has a lot of Malay influences. Also, the Chinese had entered the scene as immigrants, working as labourers in the tin mines of Phangnga and Phuket, and bringing their culture with them.

Captain Forrest, a representative of the Bengal government, visiting the area in 1784 writes:

> The people of Jan Sylan (Phuket), though they generally understand the Malay tongue, from their intercourse with that people, speak the Siamese language, and write as we do from left to right. They write remarkably straight, though without lines. They resemble in feature the Malays, with a good deal of the Chinese look; are well made, rather slender. They are allowed to marry as many women as they can maintain; but the first wife rules the household (Captain Forrest quoted in Gerini 1905:71).

Both Buddhism and Islam were professed in the region. However, as in the 1990s, indigenous supernaturalism coexisted with Islam and Buddhism. Captain Lowe, another Englishman visiting the area in 1824, notes the following:

> And here some notice may be taken of an indication of a totally different species of superstition, said to have been discovered on that island (referring to Phuket); viz. a Raetin (*Roi-tin*), as it is termed by the Siamese, or impression of a dog's foot, together with an image of that animal, which is reported to have once existed upon a rock at the northern point of the island, and which are said to be held in veneration by the Malays along the opposite coast; who, notwithstanding their conversion to a purer and more orthodox Mahommedanism than is now professed throughout most parts of India, are yet wedded to many obscure and unexplained remnants of their ancient superstitions (Lowe in Gerini 1905:99).

Phangnga Bay was also known for its marine produce. One of the earlier descriptions of this comes from Barker, a lieutenant in Sir James Lancaster's fleet, visiting Phuket in 1592:

> We sent commodities to their king to barter for ambergriese and the hornes of abath (rhinoceros), whereof the king onely hath traffique in his hands. ...At last the king went about to betray our Portugall with our marchandise; but he to get aboard vs, told him that we had gilt armour, shirtes of maile and halberds, which things they greatly desire; for hope whereof he let him returne aboord, and so he escaped danger. Thus we left the coast(Barker in Gerini 1905:36).[15]

Besides rhinoceros horns and ambergris, tin, resins and wood oil (namman yaang) were trade items with the foreigners who visited the area. Dr Koenig, the Danish botanist who made the first survey of the flora and fauna of the region, writes:

> At midday I went again to this island (Koh Maphrau) ... First of all I visited the huts of some Malays and learned from them that they boil the large Holothuria (beche-de-mer) first in salt water; after that they are put on a stand, which is made of bamboo, is half a man high, two yards broad and six feet long. They kindle a

[15] Ambergris, a waxy substance secreted by the intestinal tract of the sperm whale and often found floating in the sea, used in the manufacture of some perfumes, is mentioned as having been an important trade commodity.

> bright fire underneath this stand, which has the effect of both drying and smoking the Holothuria (Koenig quoted in Gerini 1905:49).

The magnificent coral reefs of Phangnga Bay did not go unnoticed either: "...among other corals, there are many fleshy corals on these shores" (Ibid:52).

Warrington Smyth, an Englishman in the service of the Siamese Royal Department of Geology and Mines, toured the south-western provinces of Siam in the end of the nineteenth century and described his journey in the provinces of Trang, Gerbi (Krabi) and Ponga (Phangnga). He was impressed with the vast mangrove swamps in the area (Smyth 1895:527-529).

He noted that:

> In the province of Gerbi (or Bi, as it is locally known) areas have been taken up for the purpose of exploiting the outcrops of lignite which occur in several places, and in our visits these localities we had the opportunities of being something of the wonderful series of inland waterways, which extend from the Muang, or township of Gerbi, on the north, right away to Trang, and beyond, on the south. The whole coast-line inside the outer islands consists of mangrove swamps. Here and there a low hill rises above the rest, and at its foot a Malay village lies, and the people come off their long canoes, arrayed in sarong and kris, to pilot you to your destination, or have a yarn and some tobacco. The mouth of the rivers are often flanked by spotless stretches of sand, where the wind sighs through the Casuarinas, which love to cluster near the foam of the surf, and add their gentle moan to its dull roar (Smyth 1895:527-528).

Compared with other regions of the kingdom, the Andaman Sea coast had little economic importance for the Siamese court. From the viewpoint of the Siamese kingdom, the south, especially the Andaman Sea coast, has always been a periphery. Elliot rightly considers the Southern region as a tributary territory separating the Thai and Malay social formations (Elliot 1978:64).

It was only in the seventeenth century when outside powers started to show interest in the region that the Siamese court began to show increasing interest in the region.[16]

Takuapa and Phuket (known as Junkceylon in those days) were renowned for their tin deposits. With the trade in tin picking up, the Siamese court decided to ensure its profits in the trade. Article 37 of the Law on Criminal Procedure of A.D. 1623 decreed that the production of agilla wood, sapanwood and tin were to be royal monopolies (Gerini 1905:31). Nonetheless, licences were granted to foreigners.

The Chinese had been involved in small-scale tin-mining operations for centuries. However, it was during King Mongkut´s reign (1851-1868), especially following the economic boom after 1855, that tin mining experienced a rapid expansion. Chinese immigrants started to enter the scene as labourers in the tin mines of Phangnga and Phuket in increasing numbers. Tin mining was a Chinese monopoly since they knew best the country's mineral resources. Skinner estimates that by 1870 the Chinese population in Phuket had grown to 28,000 and to over 40,000 in 1884 (Skinner 1957:110). However, in the 1880s tin mining began to decline due to low world tin prices and operations shifted to southern parts of Siam. An important element of the Chinese immigration was that they brought influences with them that can still be witnessed in the region.

In the late eighteenth century the area around Krabi was used as a place to catch wild elephants that were both sold

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[16] The Dutch entered the scene in the early part of the seventeenth century with trade interests. Soon others followed. The English (1661), the Danish (1629) and the French East India Companies entered Ayutthya´s trade. Ships of the English East India Company set trading stations in Pattani and Ayutthya.

overseas and tamed for labour. Also the government put up outposts at river mouths in order to levy taxes on trade that passed through the area. As in the ancient times, the rivers were still used as important trade routes. In the early 1800s Nakhon Si Thammarat and its environs had became a quasi-independent province in Rama I´s empire, ruled by a *chaophraya* (vassal king). The population of Krabi gradually grew as people moved from the populated plains of the east coast to the west coast. The town of Krabi was founded in 1872 and in 1892 Krabi became a province to be included in the *monthon* of Phuket (Klin 1993:37-38).[17]

The Phangnga Bay region was still sparsely populated, consisting mainly of local officials in charge of the elephant catching operations for the crown, fishermen, traders and Chinese labourers working in the tin mines. We do not have any definite figures regarding the population of the region before the twentieth century. In 1905 Carrington noted that the population of Monthon Phuket was only 178,599. He gives the figures 101,288 for the Siamese population, 32,408 for the Chinese population and 34,903 for the Malay population. In addition he mentions Burmese and Indian traders giving a figure of 10,000 for them. He also describes at some length the Urak Lawoi (Sea Gypsy) and Sakai (Negrito) populations, but does not give any figures for them (Carrington 1906:162).

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[17] *Monthon* Phuket was composed of the provinces of Ranong, Takuapa, Phangnga, Phuket, Krabi and Trang (Klin 1993:38). In the latter part of the nineteenth century, Thailand was divided into ten *monthon* for administrative purposes. Tambiah notes that the *monthon* were devised to draw tight reins of control over the provinces by means of royal commissioners who coordinated the administration of the member provinces and reported directly to the Interior Ministry. The system was discontinued in 1933 (Tambiah 1976:194-195).

Krabi is located in the transition zone between the southern Islamic Malayan world and the central and northern regions of Buddhist Thailand. Both Buddhists and Muslims are found in the province. The great majority of the Muslims, who adhere to the Shafi'i school of Islam, which is the predominant form of Islam in Southeast Asia, are found in coastal fishing villages whereas the Buddhists are found in inland agricultural villages and towns. According to Klin, in 1993 in Krabi province 34.4 percent of the population professed Islam while the rest were Buddhists with a few Christians found in Krabi town itself (Klin 1993:29). The Muslims, Buddhists and Christians coexist peacefully with each other although intermarriage across religious lines is extremely rare.

When exactly Islam arrived in this area is not clear. Most probably Islam spread from the south along with fishermen who settled in the coastal sites in the last century. Most of these people came from as far as Satun, which was once part of the Pattani principality.

The islamisation of the region must be seen within the broader context of the global expansion of Islam into insular Southeast Asia. During the thirteenth century Islam was diffused throughout the ports and principalities of the Malayan world. Most likely the inhabitants in Pattani converted to Islam sometime during the thirteenth or fourteenth centuries (Fraser 1966:1-2; Scupin 1980). Before the Bangkok period, the polities of Sukhodaya and Ayutthya were loosely tied to their tributary Malay states in the south. It was only in the Bangkok period that the Chakri kings expanded their kingdom and started to incorporate the peripheral regions into the Thai polity.

3.2.3 FROM A FISHING ECONOMY TO A DIVERSIFIED ECONOMY

To my knowledge, no detailed historical descriptions of coastal fishing villages in Krabi exist, apart from a few references in the material discussed in the section on the history of Phangnga Bay according to western travellers. However, if we use the material of oral history from the village of Ban Laem Pho, we can get a glimpse of what life was like in the beginning of the twentieth century.

Lung Phrong, the oldest living person in Ban Laem Pho, who is approximately ninety years old, remembers that when he was a young boy there were only four or five households in Ban Laem Pho. These were mostly constructed from local perishable materials, such as bamboo and wood. Who exactly founded the community is unknown.

The people lived relatively self-reliantly. In the nearby jungle tigers roamed and wild pigs and deer were abundant. Medicinal herbs were used to cure ailments. It took one and a half days to walk to the market in Krabi town and people travelled by boat along the coast when they needed to go anywhere. The nearest *surau* (prayer house) was four kilometres away.

A little rice was grown for personal consumption. Salted and dried fish were exchanged for household necessities like salt, lamp oil, needles, clothes, household utensils and the like. There was little need to use money nor did the villagers possess much of it anyway. The few outsiders who came to the village were the occasional trader and tax official who collected taxes on fishing equipment. There were no schools around and children learnt from their parents the skills they needed in life. At the age of ten, boys started to follow their fathers to the sea and learned the fishing trade through experience. Girls helped their mothers in household chores. Boats were made out of wood found in the nearby forest; only

the cloth for the sail and thread used in sewing had to be bought from the market.

Retired fishermen, like Lat, Man and Sen, who are all about 70 years of age, recall that before the mechanisation of fishing vessels in the last quarter of the 1960s in Krabi, most fishing vessels used sails and paddles to move around in the ocean. The fishing boats were about ten metres long with a mast in the middle of the keel and a boom to which was attached a cotton sail. Such a vessel was called a *rya bai*. In addition to the sail, each boat had a pair of oars (*chew*) that were used to move the boat around when the winds were not strong enough. Old timers in Ban Ko Kwang recall that in their youth the wood that was used to construct fishing boats was hard wood like (*mai yaang*) which is hard to find in these days. The retired fishermen remember that in their youth it was easy to catch fish. A sense of abundance is conveyed in the statement made by Lat: "*samai korn hae plaa gnai khae ting hae thi thale laew dai plaa tem hae ry thaa yaak chap kung ko au sawing laew ko tak kung dai tem sawing*" ("In the old days it was easy to catch fish, all you had to do was to throw a cast-net in the sea and pull it back full of fish or if you wanted to catch shrimp you just dipped your scoop-net and pulled it back full of shrimp"). In addition to the sense of abundance of fish, only prime species like Black pomfret (*Parastromateus niger*) or *Chalametdam*, Silver pomfret (*Pampus argentaus*) or *Chalametkhau* and Longfin cavalla (*Caragoides ciliarius*) or *Mongsae* were caught for commercial purposes. These fish were mostly caught after the monsoon season in November through February. The fish were slit open and the innards were discarded and the fish itself was salted and placed to dry on bamboo mats in the sun. This was the only method of preservation as ice, which is nowadays used for preserving the catch, did not yet exist. The dried fish was then marketed in the local market in Krabi town. The road to Krabi town was poor and it took one and a half days to reach it. Tigers roamed in the forest and people preferred to travel

by boat. As Man remarks: "*samai korn paa thi nii mii sya tha khrai yaak pai laat nai myang bi tong doern naan pai kap rya gnai kua*" ("In the old days there where tigers around and if anyone wanted to go to the market in Krabi town one had to walk for along time; it was easier to go by boat"). The trip to the market by boat took only half a day one way and the trip was made only a few times in a month as there was little need to go to town apart from buying things like needles, thread, salt, sugar, lamp oil and cloth from the market. Most other things could be obtained from the surrounding forest. Many fish that are sought after today were considered as trash fish (*plaa mai mii khaa, plaa hai maew kin*). On the other hand, squid (*plaa myk*) and jelly fish (*maeng khrapung*), that are considered in the 1990s to be high value species were not utilised at all in the youth of Man, Lat and Sen. When prompted for the reason, the old timers recall that since other fish species were so abundant there was no reason to catch squid and in fact they admit that no one even knew how to catch squid in those days. As for the jellyfish, even nowadays the local fishermen do not consume or use it themselves, but rather clean and salt the jellyfish and sell it to dealers who sell the jellyfish to Japan. Of course, other species were caught too, but these were mainly caught for subsistence purposes. *Khoei*, a kind of shrimp paste, made out of dried Common snapping shrimp (*Alpheaus euphrosyne*) or *Kungditkham*, chillies and garlic, was a popular exchange item that was exchanged for rice in the local market. Old fishermen also recall that in their youth one did not need to venture far out into the ocean to catch fish as most fish could be caught near the home shores or as Sem recalls: "*mya korn thammai ook pai klai mya dai plaa klai fang*" ("In those days why go out far when you could get fish near the shore").

From oral history it appears that there never was any kind of dearth regarding food in Krabi. The population density was low and fish abundant. Some rice was cultivated for subsistence purposes, but in years when the rice crop failed because of

drought, dried fish and *khoei* had to be exchanged for rice from inland communities. The region was sparsely populated with most of the coastal fishing settlements found at river mouths. These communities were connected by kinship relations to other fishing villages as they are nowadays. Trade in dried fish and consumer goods connected the fishing communities to inland towns. The relationship between the state and fishing community was manifested primarily through the annual payment of taxes. The sea was seen as a provider, but at the same time a dangerous element that had to be treated with appropriate respect. Most of the fishing was done in the local waters as the resource base was rich and diverse.

In the 1930s through 1950s there were five basic types of fishing practised in the area around Ban Ko Kwang and Ban Laem Pho. The most simple method of fishing was using a *bet* or a line and a hook. Another popular method of fishing was using the *uan jik*. This was a kind of drift net around 30 metres long and one metre in height with a mesh size of around four inches. The net was used at night and the idea was to circle a school of fish with the net and then once the net had been laid out, one would splash the water with paddles so that the fish would swim towards the net and become entangled. The net had to be taken out of the water each day and dried in the sun, otherwise it would rot as it was made of cotton. Once a month, it was necessary to *yom* or dye it to make it stronger. One would *yom* the net with egg white and *nammantangiu*, a kind of resin obtained from a certain species of tree. The whole net would be placed in a big cauldron and steamed (*nyng*) with the mixture until it was *suk* (boiled/ready). In the meantime, between each *yom* time, the net would have to be constantly mended. The old fishermen recall that of all tasks in fishing, the care of the net required most labour. Nowadays the nets are made of nylon and the art of dyeing the nets has almost completely died out in the region. Another popular method of fishing in those days was using a cast net or *hae*. This was a circular net of two metres in circumference that was thrown

over a school of fish swimming near the shore. The shrimp needed in the making of *khoei* was also caught by using a *hae*. While fishing with *bet*, *uan jik* and *hae* was geared for subsistence purposes, fishing with *uan chalamet* (see below) and *po*, which is a kind of sedentary weir (see Appendix 1 for details), were used for commercial purposes.

Uan chalamet (chalamet net) was a 200 metres long and one and a half meters high cotton net with a mesh size of around five inches. The crew of an *uan chalamet* consisted of *tai* (captain), *khon haa plaa* (lookout) and two *luuk nong* (crew members) who helped to pay out the nets and pull the catch into the boat. November through February Black and Silver Pomfret appeared in large shoals near the local shores. As Table 3 indicates there were four basic types of these fish which is in the folk taxonomy.

TABLE 3. FOLK TAXONOMY OF POMFRETS

THAI NAME	ENGLISH NAME	WEIGHT
Chalamet khii myk	Common Black Pomfret	700-800 grams
Chalamet pak daeng	Common Silver Pomfret	1000 grams
Chalamet kaem dam	Red-cheeked Black Pomfret	400-500grams
Chalamet hang dam	Black-tailed Silver Pomfret	400-500 grams

The water would appear yellowish when the Silver and Black Pomfret shoals arrived. Lat, an old fisherman who worked as a *tai* on an *uan chalamet* boat, remembers that the water would boil with fish and the crew would sometimes be scared at the sight. The main boat would have a smaller boat tied to it that the *khon haa plaa* would use. He would paddle around to see where the school of fish was and would hold a stick up when he saw a large school of fish. The rest of the crew in the main boat would then start to prepare nets (*boek uan*) and pay the nets out in the sea attempting to encircle the fish. There would be palm fronds tied to the sides of the smaller boat. The fish like to follow shadows and the *khon haa plaa* would lead the fish to the waiting net. Unlike *uan jik*, *uan chalamet* fishing was done in day time.

Lat recalls that a catch of 50-60 kilograms of Silver Pomfret would be considered as a small catch and the catch would be distributed among the crew. The system of distribution, which is still in use, was known as *nyng nai saam*. This means that each crew member would get a portion of one third of the catch while the boat owner got two thirds. If the catch was good with over 100 kilograms of fish, the catch would be sold by female dealers as is done nowadays (see Chapter 5, section 5.1.5 on distribution and redistribution for details) and the proceeds would be distributed among the crew according to the *nyng nai saam* system. For example, each crew member would get 35 baht and the owner, who often was also the captain, would get 70 baht. This sum was a lot of money in the 1940s and 1950s. The *uan chalamet* season lasted only for three to four months after which the crew would start fishing on an individual basis for subsistence consumption while waiting for the next *uan chalamet* season to begin.

Dried Silver and Black Pomfret was marketed not only within Thailand, but also exported to Malaysia and Singapore. There was a sizeable Chinese population around Phangnga Bay who had

trade connections in Penang and Singapore. *Rya sampau* or Chinese junks would sail from Krabi to Penang and Singapore loaded with coal and dried fish. On the return trip, the junks brought textiles and household items to be marketed in the region.[18]

The old fishermen note that some of the skills that were in common usage in their youth are no longer in use in contemporary Krabi. One of the more remarkable skills that has been lost was the art of listening to the schools of fish in the water (*fang plaa nai naam*). A skillful fisherman was able to locate a school of fish by submerging into the water and listening for the sound that Pomfrets would make. He would be able to tell their direction and distance from the boat. (Cf. Fraser 1966: 8-9 for a similar note on Rusembilan fishermen locating schools of prawns in the late 1950s.)

Poison (*tuba*) from a particular kind of root that grew near the shore-line was often used in traditional fishing. The poison was obtained from the bark of the root and ground into powder, and then thrown into the water. Fish would become temporarily disoriented and they could then be easily caught with a *hae*. A similar kind of poison was obtained from the Black sea cucumber (*Holothuria atra*), or *Pingthale* as it is locally known. The location of best fishing grounds were learnt through experience and passed from generation to generation. Old timers mention that some fishermen observed

[18] An interesting thing to note here is that it appears from oral history that although women did participate in fish trade at a local level they did not have as much power in financial matters as is the case nowadays. There seems to have been a historical intensification of female control of financial matters. Although women have always held power regarding financial matters, the fact that money has become much more important in everyday life has further intensified female participation in cash economy. In the past it was men who did the traveling from place to place, whereas women stayed in the vicinity of their natal villages. In contemporary Krabi communications have improved dramatically from the past and women traders move about the province and even further away than before was possible.

the behaviour of sea birds as some species could tell when the Pomfret appeared in Phangnga Bay.

Lat recalls that in his youth an annual tax called *suai* was levied on fishing equipment. The headman of the village was required to keep account of the fishing equipment in his village. The individual fishermen would pay the taxes to the headman who then forwarded the taxes to the state representatives in Krabi town. For example, *suai bet* was levied on fish hooks and would cost 1 baht per hook. *Suai uan* was levied on nets and would cost 2 baht per net. *Suai po*, which was the most expensive kind of tax, cost around 5 baht. If there was no money available for the payment of taxes, then the males would have to go and perform labour service. This meant that each man who could not pay the fishing equipment taxes had to go to build roads (*tham thaang*) for a couple of days wherever the tax officials ordered. A sizeable portion of the main road leading from Krabi to Trang was built in this way. The practice of *suai* was discontinued in the 1950s and replaced by an annual boat tax.

In the 1960s outboard motors started to appear in the market. This meant that it was easier to venture further out to sea. At the same time, the art of sailing began to die out. Old timers recall that the local fishermen were quick to change to using outboard motors instead of sails. This was basically due to the fact that those with outmoded technology could not compete with others in fishing operations as the demand of a market economy had started to make inroads into village life by the 1960s.

One of the interesting issues here is that whereas in the past much of the materials needed for fishing operations could be obtained from the surrounding environment and little, if any, moneylending was necessary, with the arrival of nylon nets and outboards motors moneylending entered the scene. Although the investment was a joint decision by husband and wife, it was

the wife who actually had the possibility of manipulating her social relations for obtaining the necessary capital for the investments (see Chapter 5, section 5.1.4 for details of how credit is raised in the villages).

An **intensification** in the use of coastal resources followed the technological changes in fishing. Motorisation of boats and the introduction of nylon nets started in the last quarter of the 1960s. The economy was still subsistence oriented, but the market economy started to make inroads into village life. Concomitantly, the livelihood strategies, although still primarily focused on small-scale fishing, started to diversify as agricultural practices involving the growing of rubber plantations were introduced from Malaysia to the region.

From the late 1960s to the late 1970s the use of coastal resources further intensified. Rice was still cultivated for household use as before, but fish was **primarily** caught for the **market**. The introduction of ice in distribution and sale of fish meant that the catch could be transported fresh to the local markets and consumers. Being able to sell fresh fish instead of dried fish brought more cash to the primary producers. In addition, this meant that the contact between the village and the town increased immensely. Young men from fishing households started to work as crew members on trawlers that ventured into the high seas. Rubber tapping was in full swing and those with the available capital invested in rubber production. The first signs of resource depletion were experienced as some valuable fish species became harder to find.

The latest phase of development started in the early 1980s. This has been an era of **rapid development** and involved further intensification of the use of the local resource base. Non-maritime seaboard developments in the form of aquabusiness, tourism and industrial developments has meant the **integration** of the local economy with the modern capitalist world-economy. At the household level there has been a **diversification** in the strategies of securing a livelihood.

While the fishing economy explored in Chapter 5 continues to coexist with the contemporary non-maritime seaboard developments, the importance of the latter developments has clearly increased and as a result we can no longer talk about a livelihood based solely on fishing.

Nowadays there is considerable communication between coastal villages. Direct communications via beach roads is relatively easy now, as *song teow* (rural pick-up taxis) serve almost all coastal villages. Many of the villagers have kin relations in nearby villages. People meet people from other villages at various social occasions and religious festivities. The fishermen of one village know other fishermen from other villages along the Phangnga Bay coast and as far as Phuket. Villagers meet other villagers in the local Thursday market (*talat nat*) in Ban Nong Thale.

It is in Krabi town where almost all bureaucratic functions of the district are carried out. The provincial Fisheries Department where the annual boat tax has to be paid is also in Krabi town. Here is also located the main provincial market where merchandise, that can not be found in local village markets, is bought. Annually, a Muslim feast is held near the provincial administrative building (*sala klang*).

The entire economy of the fishing villages is linked to the regional economy. In addition to the regular sale of sheet

rubber coconuts to middlemen who transport these items to refineries and processing plants as far as Trang and Hat Yai, fish must be sold daily in Krabi town. There is also a large demand for consumer goods in the villages. The villages are not self-sufficient in rice and rice must be bought in Krabi town from Chinese dealers. There are small general shops in the villages where necessities like gasoline, vegetables, detergents, biscuits and such can be bought, but for any other items one must go to the local Thursday market or to the shops in Krabi town. Itinerant traders come into the villages selling all sorts of bric-a-brac. TV and radio commercials introduce the villagers to a world of goods that they never knew they lacked before.

Ban Laem Pho and Ban Ko Kwang, once remote fishing villages in a peripheral part of the Thai state, are now integral parts of a nation that is increasingly integrated into the capitalist world-economy. The days of Lung Phrong and the likes of him are probably gone forever. Contemporary fishermen face the challenges of the modern capitalist world-economy, in which decisions made away in one part of the world have important and sometimes irreversible ramifications upon the life of people in another part. Of course, throughout the course of history decisions made in one part of the world had important and irreversible consequences for people on another part (see for example Wolf (1982) for a thorough discussion of the consequences of European colonialism on local societies). Nonetheless, in the modern capitalist world-economy, things take place at an ever increasing pace. Decisions that are made today are often implemented tomorrow. For example, as a result of Thailand´s policy of investing in tourism, Krabi is being promoted as a prime destination for international tourists. Fishing households in villages like Ban Laem Pho, that a few years ago relied solely on fishing for a living, today find themselves involved in the manufacture of souvenirs for tourists that each year come to the beaches in increasing numbers. Another example of parallel development is the

decision by the Thai government, as a result of Thailand's involvement in various global and regional schemes, to develop the vicinity of Ban Ko Kwang into an industrial site resulting in drastic changes in the local marine environment. The households that only a few years ago lived on fishing and rice cultivation for subsistence purposes in a village where there was not even a dirt road, today find themselves surrounded by construction of piers for container ships, a maze of oil pipelines, and ten-wheel trucks speeding up and down the newly constructed road that runs through the village.

4. HOUSEHOLD, GENDER AND SOCIAL RELATIONS

The objective of the chapter is to explore aspects of social organisation of Ban Laem Pho and Ban Ko Kwang. Some of the questions that are addressed here include: How is the household constituted? What are gender relations like in Thai Muslim society? What kind of ceremonial and social networks are in place and what are their significance to the villagers? What is the place of Krabi Thai Muslims in contemporary Thai society? Through these discussions I will attempt to trace the social world as it unfolds to the villager in the communities of Ban Laem Pho and Ban Ko Kwang. I have not at any stage assumed that what is portrayed here has always been so nor that it will be so in the future. Rather, I wish to portray a glimpse of life as it unfolded to me as a researcher during the course of my fieldwork.

There is a considerable amount of anthropological literature devoted to the detailed analysis of Thai peasant social organisation (see for example Embree 1950; Kaufman 1960; Hanks 1962; Evers (ed.) 1969; Piker 1975; Kemp 1976; Potter 1976; Sharp Hanks 1979; Brummelhuis & Kemp (eds.) 1984; Polioudakis 1989, 1991 among others). Apart from Polioudakis´ works, these writings, however, base there findings on other regions of Thailand than the south. In addition, they base their findings on rice-growing communities. The only work that discusses the social organisation of a maritime community is Fraser´s (1966) classic study of Malay Muslim fishermen in Pattani. To my knowledge there is no anthropological literature concerning the Thai Muslim maritime village social organisation in Krabi or, for that matter, on the west coast at all, apart from Anderson´s (1988) work on Thai Muslim children´s play culture.

Although the in-depth comparison of the social organisation of Thai Muslim and Thai Buddhist communities is beyond the scope of this thesis it should be noted that there are many similarities in the social organisation of the Thai Muslim society I studied and anthropological studies on Thai Buddhist peasant society. In addition to language, the Thai Muslims and Thai Buddhists share a common social structure including bilateral kinship, arranged marriage rules, systems of bridewealth, residence patterns, and inheritance patterns. The interesting thing is that Thai Muslims combine concepts that have roots in Thai Buddhist practices with those of Malay and even Arabic concepts. For example, while they may use a concept like *thambun* (to make merit) in death rites, which clearly comes from a Thai Buddhist world view, at the same time they may use concepts like *khau sunat* (enter into Islam) in the circumcision rite, which indicates Malay roots.

4.1 THE SOUTHERN THAI MUSLIM HOUSEHOLD

4.1.1 THE HOUSEHOLD DEFINED

The household is an elusive concept. Attempts to define it abound in anthropological literature. (See for example Bender 1967; Yanagisako 1979; Roberts 1991.) Traditionally anthropologists have been concerned with two related institutions, which are kinship and the domestic domain. The attention to kinship, especially, the lineage, and the domestic domain was characteristic of anthropology of small-scale societies, particularly in Africa and the Pacific. The lineage referred to a politico-jural unit, which was constituted from particular social principles of kinship and descent. It was really more concerned with such issues as collective ownership of resources and collective responsibility in law and in wider arenas. The lineage was not considered a unit of daily production and reproduction. The sphere of such daily activities was conceptualised under the term 'the domestic domain'.

It was not really until the 1960s that the household came into the focus of attention in anthropological literature. As anthropologists increasingly turned their attention to the study of peasant societies, the household in terms of 'the peasant household' as the principal unit of production and consumption in peasant societies was discovered and debated.

A.V. Chayanov's (1925) seminal work *The Theory of the Peasant Economy* greatly influenced anthropologists concerned with the study of peasant societies. The concept of the 'domestic mode of production' was coined. For example, Sahlins (1972) argued that among peasants, where the household is the unit of production, changes in the demographic structure of the household as it moves through the developmental cycle will entail changes in the ratio of consumers to workers. As the number of dependants increases, while the number of workers remains constant, each family worker must farm a greater amount of land and work longer hours. Thus, the amount of time a family member works is proportional to the dependency ratio of the household (Sahlins 1972:74).

Nevertheless, there were problems with the way the household was conceptualised. The household was treated as a corporate unit without any regard to intra-household relations, whether they were of gender or generation. This line of thought still prevails with some world system theorists. For example, Smith and Wallerstein in a recent book, *Creating and Transforming Households: The Constraints of the World-Economy* (1992), define the household as an income-pooling unit. While this perhaps is applicable in some contexts, it assumes too much and is too universalistic. Roberts, for example, points out that in Africa as a whole, property of spouses is not pooled. Rather, there exists a system in which husbands and wives have separate purses. They may collaborate in household productive and reproductive activities with specific expectations of labour input, rights of ownership and share of product.

Nevertheless, wives, sons and daughters may at the same time engage in their own income-generating activities, which have little to do with that of the domestic enterprise (Roberts 1991:63-64).

How do anthropologists then define the household? What about defining the household through its functions? Roberts argues that most anthropologists would agree that the household is "the basic unit of society in which the activities of production, reproduction, consumption and the socialisation of children take place" (Roberts 1991:62; cf. Moore 1988:54-55).

She then argues that a household as defined through the above mentioned functions exists in terms of indigenous categories or that what appears to be a household, is actually where these functions are combined (Ibid.:62). In some societies there may be no indigenous term for a `household´. There may be terms referring to some elements of the concept of a household ranging from units of co-residence to groups of people eating together to groups of people engaging in joint productive activities. For instance, consider the Thai term for a household. Such terms as *khro´bkhrua* (a common hearth), *langkhaa baan* (those living under the same roof) *baan* (house) all denote the concept of a household (Hirsch 1990:155). In Malay society the notional centre of the house is the *dapur* (the hearth) (Carsten 1989:131).

Roberts also points out that households do not necessarily comprise persons recruited solely through kinship and marriage (ibid:.62). Members of a particular household may be acquired through adoption and purchase or may be incorporated into the productive enterprise of some members and to the consumption of others.

4.1.2 THE SOUTHERN THAI HOUSEHOLD

What about the Southern Thai Muslim household? Generally speaking, the Thai Muslim household does not differ much from the Thai Buddhist agricultural household in its constitution (see for example Kingshill 1965; Piker 1975; Potter 1976 among others for discussions of Thai peasant households). The most often used term to denote a household in the coastal villages in Krabi was *khrua ryan* (literally hearth and shelter). When asked about the population of a village, village heads answer by telling the number of *khrua ryan* in the village.

The usual pattern is that of a conjugal nuclear family unit where the household members are related through kinship and who share common productive activities, with specific expectations of labour input, rights of ownership and share of product. If we look at statistical data the nuclear family was the most common form of family in both Ban Laem Pho and Ban Ko Kwang with 67 percent of the households in the former and 74 percent of the households in the latter. The rest of the families were either joint (21 percent in Ban Laem Pho and 10 percent in Ban Ko Kwang) or extended families (12 percent in Ban Laem Pho and 16 percent in Ban Ko Kwang). However, the prevalence of nuclear families could give an inaccurate picture of family structure to the casual observer. As noted above, there is a **strong tendency for matrilocal residence** in fishing villages resulting in a pattern in which daughters and their husbands form their own households near the daughters' parents' household forming a family compound in which members trace kinship ties through the wife. These family compounds are sometimes referred to as *khrua ryan cha su* (literally hearth shelters of elder and younger sisters).

This means that such conjugal nuclear families form family compounds where the sisters´ households look after the needs of each other and share productive activities like making of meals and so on. While members of a particular household identify with a particular dwelling when asked for household membership, it was not uncommon for individuals to belong to a group of households that share in productive activities and share resources. For an outsider it is sometimes difficult to determine exactly where a household begins and ends. Members of one household can be found in one of the other´s during the day, and sharing of food and labour is common.

Also, as will be discussed in the next chapter, the crew composition of fishing boats is often made up of a man and his sons and/or his sons-in-law who live in the family compound. Take, for example, Kasem´s and Fii´s household from Ban Laem Pho. The couple lives with their adult son and Fii´s mother near the ´Fossil Shell Beach´, where they have set up a souvenir stall. Two of the couple´s married daughters live together with their families near Kasem´s and Fii´s house. The three families that are related by blood ties form a family compound. Both daughters help their mother in selling souvenirs to visitors. Their husbands help Kasem, their father-in-law, in fishing operations. The three families live in separate dwellings, but share in many productive activities such as preparing meals, preparing the souvenirs for sale, fishing and so on. The adult members help take care of each other's children. Fii acts as a financial manager for the three families. She divides the proceeds from souvenir sales and fish sales among the three families according to the capital and labour invested. Each household has a separate budget and makes individual decisions regarding investments and purchases. However, investments and purchases that concern all the three households are collectively negotiated with Fii as the eldest female who has the final word.

4.2 HOUSEHOLD PROFILES

In this section the sociodemographic profiles of the Ban Ko Kwang and Ban Laem Pho households are presented with the aim to provide the reader with statistical data of the composition of village households. In addition, in order to give some substance to the statistical data and analysis of household profiles, ten case studies of typical households are presented at the end of this section.

DE FACTO AND DE JURE HOUSEHOLD HEADS

TABLE 4. SOCIODEMOGRAPHIC PROFILE OF HOUSEHOLD HEADS IN BAN LAEM PHO AND BAN KO KWANG

	Ban Laem Pho	Ban Ko Kwang
	Number	Number
Total	151	86
Sex		
Male	131	83
Female	20	3
Age		
under 20	0	0
20-35	38	33
36-50	53	28
over 50	60	25
Marital status		
Married	123	82
Single	3	0
Widowed	25	4
Religion		
Muslim	148	86
Buddhist	3	0
Formal education		
None	39	22
Grade 1-4	62	30
Grade 5-6	31	31
Beyond grade 7	19	5

(These figures are based on data collected as part of a general household census conducted in October-December 1993.)

The sociodemographic profile of the head of household is produced in Table 4.[1] The data is based on the answers villagers gave to me to the question: Who is the head of this household? The villagers, both men and women stated that it was usually the eldest male. Only if there were no adult males present in the household was a female named as the household head. This is in line with Islamic rhetoric. Males are considered *de jure* household heads, as they represent moral and political power within the household. Nonetheless, if taken at face value, the figures presented in Table 4 are misleading and mask power differentials within village society. Although males may be considered to be *de jure* household heads, they are by no means necessarily the *de facto* household heads. Handa, in her comparative study of Caribbean and West African households, argues that it is mainly the women who are the real providers and decision-makers when it comes to financial issues within the households (Handa 1994:1535; cf. Friedmann 1992:107). This is also the case with the women in Thai Muslim fishing villages. Following the sexual division of labour and Islamic ideology, it is the males who formally represent the households to the outside world. However, this masks the fact that women actually have

[1] All heads of household are over 20 years of age and almost all were married as an unmarried person in Muslim communities is not considered to have attained adult status yet. Coastal fishing villages in Krabi profess themselves to be almost exclusively Islam. The few Buddhists who may reside in the village are usually traders or government officials such as teachers. The level of formal education is relatively low as sons tend to follow their fathers occupations. The older villagers who are now over 60 often have no formal education at all. This is due to the fact that in their youth schools were almost non-existent in the remote coastal villages. Those aged between 35 to 60 may have four years of schooling enabling them to possess basic reading and writing skills. The younger generation have at least six years of education and there are a few who have some further education from the Krabi Technical College. No one has been able to obtain an university level education yet. However, although the formal education of most Muslim villagers tends to be low, some members of the more wealthy households have studied in religious schools or *ponoh*.

economic muscle. The strong tendency towards matrifocality and the association of women with the community as explained before reinforces women´s power in financial decisions. It is women who can rally their kinship ties to amass capital for investments (see Chapter 5, section 5.1.4 on obtaining credit) and as will be explained in section 5.4 land is vested to women, which in turn gives them a special place within village society.

SOCIODEMOGRAPHIC PROFILE OF FAMILY SIZE AND WORKING MEMBERS OF FISHING HOUSEHOLDS IN BAN LAEM PHO AND BAN KO KWANG

TABLE 5. SOCIODEMOGRAPHIC PROFILE OF FAMILY SIZE AND WORKING MEMBERS OF FISHING HOUSEHOLDS IN BAN LAEM PHO AND BAN KO KWANG

	Ban Laem Pho	Ban Ko Kwang
Family size		
1-2	10	2
3-5	63	51
6-8	46	29
over 9	32	4
Average family size	6.2	5.2
Average working members per family	3.5	2.7
Total	151	84

(These figures are based on data collected as part of a general household census conducted in October-December 1993.)

Some Thai Buddhists voice the opinion that Muslims do not practise contraception and have more children than Buddhist counterparts (Suchart 1983:196-197). While there may be some truth in this view, the sociodemographic profile of family size in Ban Laem Pho and Ban Ko Kwang in Table 5 shows that the majority of family size ranges between 3-5 persons. There is also a considerable number of households with a family size of 6-8 persons. There are a few households with over 9 members. Many households with over 6 persons are either extended or joint families. With the matrilocal tendency in the region, there are a considerable number of sons-in-law in the households. The average family size is around 5.2 - 6.2

persons.[2] Most villagers accept that a very large number of children is a financial burden and the younger generation in particular, considers two or three children as the right number.

The differences in family size between Ban Laem Pho and Ban Ko Kwang can be partly explained by historical and geographical reasons. Ban Laem Pho is an older settlement with a larger population. Partly due to the fact that the village is situated on a cape the population density is higher than in Ban Ko Kwang where there is more space. As households must share resources in Ban Laem Pho, there are many joint and extended families there, whereas in Ban Ko Kwang there are more nuclear families since there is less population pressure. Another reason for the smaller population in Ban Ko Kwang is that quite a few families have moved away to other villages along Phangnga Bay or even to Krabi town after having sold their land to speculators.

The average number of working members in the family is 2.7 to 3.5 persons. The definition of working member includes self-employed fishermen, housewives, casual labourers and practically all people who contribute to the household income in one way or another. Those under 12 and over 65 are not considered to be part of the active family work force. Of course, such figures are only averages as many children help their parents in household tasks. Moreover, retired persons help as much as they can.

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[2] The average family size in Southern Thailand in 1992 was 4.1 persons (Thailand 1994:123).

ANNUAL HOUSEHOLD INCOME AND STRATIFICATION

TABLE 6. ANNUAL HOUSEHOLD INCOME (THAI BAHT) IN BAN LAEM PHO AND BAN KO KWANG

	BAN LAEM PHO	BAN KO KWANG
14,999 or below	32	20
15,000 - 24,999	28	23
25,000 - 34,999	36	16
35,000 - 44,999	22	12
45,000 - 54,999	15	3
55,000 or over	18	12
Total Households	151	86

(These figures are based on data collected as part of a general household census conducted in October-December 1993.)

The annual household income in Ban Laem Pho and Ban Ko Kwang is represented in Table 6.[3] The annual income per household in both villages can be divided into three categories. These three categories that are derived from income also form the basis for stratification within village society. The first category includes those households with an income ranging between 0 to 24,999 baht. This category consists of low income households. In Ban Laem Pho 40 % of households and in Ban Ko Kwang 50 % of households belonged to the low income category. The low income category includes both landless and land-owning households. The poorer households tend to utilise simple technology in their fishing operations such as handlines and small gill-nets. In addition, this category includes households that derive their livelihoods from casual labour in the gypsum pier and rubber plantations. The majority of village households are represented in this category.

[3] The average annual household income in Krabi in 1993 was around 21,000 baht (*Phaen pattana changwat krabi 2534-2536*). In 1993 the average monthly household income for the Southern Region as a whole was 6,383 baht (Thailand 1994:123).

The second category consists of the middle income households with an annual income ranging between 25,000-44,999 baht. In Ban Laem Pho 38 % and in Ban Ko Kwang 33 % of households belonged to this category. These households are neither poor nor wealthy. Middle income households include households that own small rubber plantations, some rice land, coconut orchards. They also utilise middle-scale fishing technology such as larger gill-nets and push-nets besides handlines. A few households have set up souvenir stalls in "Fossil Shell Beach" and some household members derive income from working in the tourist industry in Ao Nang and Railae beaches. Fishing was the main activity for these households, but a great many households supplemented their income by other activities. Around a third of village households belong to this category. The third category includes households that have a high income. In Ban Laem Pho 22 % and in Ban Ko Kwang 17 % of households belonged to this category. These households are generally well-to-do households with some capital available for investments and represent the village political and economic elite. Many households in this category own rubber plantations and a few own oil palm plantations. Most traders and stall holders are included in this category. Also those fishermen that have turned their boats into tour boats for tourists belong to this category. Interestingly enough there were only a few households that derived their income from fishing in the high income category. Fishing tended to be a supplementary source of livelihood for the wealthy households. Such households would use capital intensive technology like the large sedentary weir known as the *po* for fishing operations. (see next chapter for a detailed discussion of the sources and patterns of livelihoods the village households are involved in).

CASE STUDIES

In the following, I present ten household profiles from Ban Laem Pho and Ban Ko Kwang with the objective to show a cross-section of village households. The chosen ten households are typical and fairly representative village households. Four of the households are in the low income category, three in the middle income category and three in the high income category. The main sources of household income in question include fishing, agriculture, wage labour and trading. Also the different age groups are represented. The first five household profiles are from Ban Ko Kwang and the last five from Ban Laem Pho.

Case 1. Landless fishing household

There are seven members in Pong´s and Mari´s household. Pong is 42 and his wife, Mari, is 39. Pong was born in the neighbouring village of Ban Nong Thale and moved to Ban Ko Kwang when he married Mari from Ban Ko Kwang at the age of 29. Mari was 27 at the time of their marriage. Pong has no formal education at all since his father died when he was a young boy and he had to help his mother and other siblings by working as a crew member on a fishing boat. Mari finished four years of primary school, something which is rather typical for women of her age group. The eldest child is 12, the second 10, the third 9, the fourth 6 years of age. The youngest is only 1 month old. The family lives near the village cemetery (*kubor*) on a coconut plantation owned by a capitalist from the town of Suratthani who bought the land a few years ago from a villager. In exchange for looking after the plantation and some 100 coconut trees, the family is allowed to live on it for free. Their house is located right on the edge of the beach and has a bamboo floor and walls and a thatched roof. The couple own a 19 *kong* boat. Mari raises chickens, ducks and goats. She would like to have a little vegetable garden but nothing except coconut trees and grass grows on the sandy

beach land. The family uses the *kubor* well for water. Food is cooked on a charcoal hearth as there is no electricity in the hut.

In his youth Pong worked as a crew member (*luk rya*) on a trawler from Phuket. He has also made a living by climbing coconut trees but has now quit the job which was physically very demanding. He also tried his luck in a tin mine in Phuket but quit after six months as the work was dangerous and exhausting. There were many cave-ins and he was scared that he might die in the mine. Pong has always loved the sea as there one can be free and independent. Pong is proud of his knowledge of the fish species, their behaviour, their locations and so on and is considered to be an expert fisherman by his peers.

His primary method of fishing is using *sai myk* and *bet*. The annual family income is in the region of 20,000 baht, which places the household in the low income category. Pong notes that fishing is a very volatile occupation. On some days the catch is exceptionally good and on others almost nothing is caught despite hard work. Both Pong and Mari agree that working the land would yield a more steady income but work other than fishing would not entail the same feeling of freedom and independence.[4]

Case 2. Fishing household with some land

There are eight members in Sak´s and Pranee´s household. Sak, born in Ban Ao Nang, is 34 and his wife Pranee, born in Ban Ko Kwang, is 29. Both have four years of formal education. Like Pong, Sak moved to Ban Ko Kwang when he married Pranee. They

[4] It should be noted that in the coastal villages most landowning is by women. Furthermore, farming knowledge is mostly held by women and the knowledge of the sea is the domain of men. However, with recent changes in the local livelihood structures this division of knowledge by gender is becoming increasingly blurred.

have four children: 9, 8 and 6 years old and a 9-month-old baby. While the two older children go to school in Ban Khlong Muang, the six-year-old boy helps his father in fishing. In the household there is also Pranee´s 60 year-old mother who is currently engaged in religious studies at a *ponoh* in the neighbouring village of Ban Khlong Haeng.

Unlike Pong, Sak has never engaged in jobs other than fishing. He has been a fisherman his entire life. His primary method of fishing is using lines and hooks (*bet raw*). Most of the catch Pranee sells to a dealer from the village of Ban Khlong Haeng. *Bet raw* fishing is done at night and during the day Sak mostly rests or sometimes goes to help his brother-in-law make squid traps.

One of the main production problems that Sak faces is that he does not own his own boat but has to borrow his brother-in-law´s boat for fishing. As his brother-in-law fishes squid during the day the boat is available for Sak at night. Other villagers gossip that Sak lost his boat when he got into trouble with the law. He was caught using dynamite near the neighbouring village of Ban Khlong Muang and the family had to sell their boat in order to pay the fines for Sak´s release from jail.

The annual income of the household is in the region of 25,000 baht. The only land the couple has is the land on which their house stands, that Pranee inherited from her parents. The house is built on stilts and has wooden planks for the floor and walls and a corrugated iron roof. As the house is situated around 500 meters from the beach, the soil is fertile and Pranee has a well-tended vegetable garden behind the house. Besides growing vegetables for their own consumption, Pranee sells garden produce to her neighbours and for other people at the Thursday market in Ban Nong Thale. The house also has electricity and its own well for water.

Case 3. Household with retired couple and widowed granddaughter

There are four members in Man's and Sukuma's household. Man is 74 and his wife Sukuma is 76. Both were born in Ban Ko Kwang and neither have any formal education as there were no schools in the area when they were children. Nevertheless, Man has learned to read and write both Thai and Arabic.

Man is a retired fisherman, who has extensive knowledge of fishing and the sea. He is also one of the last surviving persons who knows about the old ways of fishing. He traces his lineage back to the original inhabitants of the village. Man's great grandfather was a *choon salat* (pirate) who came from somewhere near Satun in the south and settled in Ban Ko Kwang. The pirates used to rob Chinese junks that sailed between Phuket and Penang. Man said that his great grandfather and a few others were escaping officialdom and came to Krabi as the area was very sparsely occupied in those days. They then settled in what is the current location of Ban Ko Kwang.

Man is a well respected member of the community and a member of the village mosque committee. Although Man is not the village healer, he is well versed in the occult (*sayasaat*) and is asked to perform the boat blessing ceremony (*puleh*) each year for village boats. In addition, he has some knowledge of herbal medicine and makes herbal potions for sick villagers when asked.

Man and Sukuma remember second world war, when Japanese soldiers came to the area. They remember seeing an allied submarine surfacing in the local waters and sinking a Japanese warship in Phangnga Bay. Man had to act as a village policeman during the war and report strangers to the officials in Krabi town.

The couple´s 26-year-old granddaughter and her 3-year-old daughter live with Man and Sukuma. Her husband was killed in a road accident a few years ago after which she moved in to live with her grand-parents. The family lives in a house built on stilts a few hundred metres from the beach. The wooden floor and wall planks are cut from trees that Man himself felled from the local forest. Nowadays, most of this forest is replaced by rubber plantations. The house has electricity and a well that the family share with their two neighbours.

Sukuma has invested in a 19 *rai* (3.04 ha) rubber plantation, that her granddaughter helps to tap. Man also receives small payments for his services from the herbal potions he makes and for performing the annual *puleh* ceremony. The annual income of the household is in the region of 40,000 baht, which places the family in the middle income category.

Case 4. Casual labourers' household

There are four members in Lek´s and Oi´s family. Lek is 30 and his wife Oi 28. Both have four years of formal education. Oi was born in the village of Khao Klom some nine kilometres from Ban Ko Kwang. Lek is from the neighbouring province of Trang. When he was a child the family moved to Pattani in the east coast where he learned some *Yawi* (local Malay dialect). The couple moved to Krabi in search of work and settled in Ban Ko Kwang, where Lek found work as a casual worker in the gypsum pier. There he operates a crane which lifts gypsum onto the escalator that takes the load to the waiting cargo ships. Oi works in a launderette of a Ao Nang beach guest house during the tourist season. The couple has two children, 10 and 7 years of age.

Since both adults work outside the house, the annual household income is relatively high in the region of 48,000 baht. The family does not own any land and must rent a house from one of the villagers.

The couple feel that they are well received in the village as they are both Southerners and speak the same dialect as the rest of the villagers, but due to the fact that their kin are elsewhere they feel like outsiders in regards to the village social life. As their jobs are tied to timetables and schedules they are unable to take part in many village social events and religious gatherings. Also, unlike most men, Lek does not have any experience as a fisherman and cannot, therefore, take part in men´s talk which is so often about the sea and fishing-related topics. In addition, as there is some tension between the villagers and the gypsum company, Lek feels uneasy sometimes as he is a ´man of the company´ (*luk nong borisat*). In a way, the household represents the modern way of life as both the husband and the wife receive their livelihood from occupations related to industry and tourism.

Case 5. Palm oil plantation owners' household

There are nine members in Hajji Yi´s and Wachalee´s household.[5] Hajji Yi 49, was born in Ban Laem Sak, Amphoe Ao Luk in northern Krabi. His wife Wachalee is 39 and born in Ban Ko Kwang. The couple has seven children aged 20, 17, 15, 11, 6 and 4 and a new-born girl. The family lives in a two-storied

[5] Perhaps of all the villagers that I came to know during the course of my fieldwork, it was Hajji Yi who was the most vocal informant who was quick to perceive what I was doing in the village. Hajji Yi is a man who likes to spend time reflecting on life and articulates his views in a more sophisticated fashion than other villagers. He was also one of the villagers in Ban Ko Kwang who took me under his wing and taught me about village life and the nature of Thai Islam. He also introduced me to other villagers. There is no doubt that due to my friendship with such a respected religious man that other villagers accepted me as well.

wooden house right on the edge of the beach near the village mosque.

Hajji Yi, as the title indicates, is a religious man who has been on a pilgrimage to Mecca.[6] In his youth, Hajji Yi studied in a religious school on Ko Yao Noi island. For a while he also worked as a crew member on a fishing boat operating in Ban Laem Sak waters. He then married Wachalee and the couple settled in Ban Ko Kwang. Coming from a well-to-do family, Wachalee inherited around 25 *rai* (4 ha) of rubber plantation on the slopes of Khao Haang Naak near Ban Ko Kwang. The rubber plantation proved profitable and in 1982 Wachalee bought 30 *rai* (4.8 ha) of land from her aunt from Ban Khao Thong a few kilometres away. Yi and Wachalee decided to plant oil palms in the land and this proved a wise choice since there has been an increasing demand for palm oil in Thailand. With the proceeds from both the rubber plantation and oil palm plantations, Yi made a pilgrimage to Mecca in 1991. Wachalee was not interested in going abroad, but instead bought another 10 *rai* (1.6 ha) of land from Ban Khlong Haeng where she has planted pineapples.

The couple has an annual income of around 75,000 baht, which places them among the elite of the village. They have sent two of their eldest sons to study in a well known *ponoh* in Yala province. Hajji Yi pointed out that the atmosphere in the predominantly Muslim Yala is better for religious studies than in Krabi where there are many ´worldly´ distractions for young men.

Above all, Hajji Yi is a deeply devout Muslim who is thought by other villagers to have much *bunkhun* (indebted goodness)

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[6] Hajji Yi is, what I call, ´a charter flight hajj´. In Thailand there are travel agencies that specialize in packaged tours to Mecca for aspiring pilgrims. The cost of the package is approximately 50,000 baht and includes the travel to Mecca, accommodation, food and the services of a tour guide who can speak both Thai and Arabic.

invested in his person. According to Yi, religion must come before anything else. If one has religious knowledge, one will know how to make the right choices that Allah wishes men to make and all the material wealth will follow. He is a member of the village mosque committee in the capacity of the Public Relations Official (*prachaasampan*). Hajji Yi is one of the few villagers who attends every single prayer (*lamat*) in the village prayer house. He also sometimes leads the prayers on behalf of the village Imam. Hajji Yi is also consulted by other villagers for his opinion on religious matters. He is also asked to attend the various village social events (*nuri* ceremonies) held in different households because his presence will bring good luck (*chookdii*) and merit (*bun*) to the household sponsoring the events.

Case 6. Landless fishing household

There are five members in Hem's and Noi's household. Hem is 33 years of age and his wife Noi 32. Both were born in Ban Laem Pho and have four years of formal education. Their children are 15, 10 and 4 years of age.

The house they live in is a simple hut with a bamboo floor and walls and a thatched roof. They share a well with Noi's sister's family. The hut is located near the fish pier on the outskirts of the village. The land there is mostly sand and nothing except coconuts and grass grows there. The family does not own the land on which the hut is built and pays a small rent to the local landowner who is a village trader. The annual household income is in the region of 22,000 baht, placing them in the low income category.

Hem is a hard working fisherman, but feels that he has never had much luck in life. Both his and Noi's parents were poor people and had little to give their children except for basic necessities. Hem finished four years of school but at the age of 11 followed his father on fishing trips to the sea. Hem

also worked for a while on a trawler in Ranong, which is fairly far away from Krabi. At the time he wanted some adventure and also got it when the trawler, in which he was a crew member, ventured illegally into Burmese waters on several fishing trips. Luckily the boat was never fired on but Hem knew of boats that have been captured by the Burmese authorities and the crew arrested and never heard from again. After this, he worked as a rubber tapper for a while but since he never liked that kind of work he started fishing with his brother-in-law. Currently, they share a 19 *kong* (8 m) boat and fish mostly with line hooks. He also has started fishing with squid traps. Most of the catch from the line hooks is for personal consumption, except for high value fish like Barracuda, Hardtail Scad and Yellow queenfish which Noi sells to Su, one of the local fish dealers (see case 8).

Hem is irate about the trawlers that sometimes destroy his squid traps with their trawls. Hem and a few others have attempted to stop these trawlers by cutting their trawls. He says he does not have anything personal against the crew members as he knows they are just making a living but complains it is the trawler owners who should be responsible for their actions. Hem is known by other villagers to be a violent man who would not hesitate to shoot his enemy if confronted by him.

Case 7. Casual labourers' household

There are five members in Ui´s and Meuw´s household. Ui is 35 years old and born in Ban Ao Nammau. His wife Meuw, is 32 and was born in Ban Laem Pho. Both have four years of education. The couple has two children who are 10 and 6 years of age. As in Kasem´s family, Meuw´s mother lives with the family.

The house they live in is built on stilts in the middle of the village near the school. The floor and walls are made of

wooden planks and the roof is made of corrugated iron. They have a small vegetable garden and a small rice field that Meuw inherited from her mother, which they cultivate for own consumption. Ui is one of the few villagers who owns a buffalo and he ploughs his neighbours' fields in return for a small fee.

Ui has also tried his luck on a trawler down in Trang, but did not like the tough life on board the boat and quit that job soon. Ui complains that he has never had any luck in fishing. Therefore, he has worked as a casual labourer tapping rubber on other villagers´ plantations. He also worked for a few years in a coal factory in a neighbouring village. The job involved chopping mangrove forest for coal production. Currently, he works for 120 baht a day as a labourer on a shrimp farm in Ban Laem Pho. Meuw got a job as an assistant cook in one of the small guest houses in Ao Nang Beach. Her 1,200 baht monthly pay helps to supplement the family budget. The job lasts for only six to seven months per year as tourism in the region is a seasonal phenomenon. The annual family income is difficult to estimate as the family income fluctuates from month to month, but it is most likely in the region of 28,000 baht placing the household in the lower middle income category.

Case 8. Fish dealer´s household

There are four members in Su´s household. Su, 38 years of age, is a native of Ban Laem Pho. Her husband Usan passed away a few years ago following an accident at sea. Before his death, Usan used to work as a crew member on his brother´s boat. Su has to look after the couple´s three children aged 13, 10 and 8. However, her mother, who lives next door, often looks after the children when Su is away dealing fish.

The family lives in a small wooden house near the mangrove swamp at the edge of the village. The only land they own is

the land their house is built on. Although they share a well with Su´s mother they have their own electricity.

Su is a fish dealer and buys fish from local fishermen on a regular basis. She owns a 125 cc Honda motorcycle to which is attached a large ice box in which she transports the fish to the market in the town of Krabi. Su resells most of the fish to stall holders at the market who are her regular customers. In other words, Su is a small-scale middleman.

These days the annual income is in the region of 28,000 baht, placing the household in the middle income category. Su complains that their standard of living has decreased ever since Usan´s death.

Case 9. Rubber plantation owners' household

There are five members in Prasaan´s and Wanna´s household. Prasaan is 35 years of age and was born in Ban Khao Klom. His wife Wanna, is also 35 years of age and was born in Ban Laem Pho. Together they have six years of formal education. They have three children aged 13, 11 and 9, the eldest studying in a religious school in Phattalung province.

The family lives near the village school in a house on stilts. The house has a wooden floor and walls and a corrugated iron roof. They have their own well for water but it is shallow and tends to dry up in April. When this happens they have to share a well with a neighbour. Prasaan worked for a while on a trawler in Phuket but after getting married he settled down and started to take care of the 20 *rai* (3.2 ha) rubber plantation that Wanna inherited from her parents.

The family´s rubber plantation is a typical small rubber plantation. The couple tap rubber themselves and only sometimes hire Wanna´s younger brother to help cut grass in the plantation. The annual household income is in the region

of 48,000 baht which places the family in the higher middle income category. Most of the income is made between October and February when latex flows well. The worst months are in May and June when the monsoon season has set in, heavy rains making tapping difficult.[7]

Occasionally, Prasaan goes out fishing with his brother-in-law. This, however, is purely for entertainment and

[7] From October to February, production is good with an average yield of around 20 mornings per month. In March and April, production decreases to around 15 mornings per month as this is the dry season and latex tends to dry up. May and June are the worst months as the monsoon season has set in and there are only 5-10 days per month when the rubber can be gathered. The quality of latex during this period is low as rainwater gets mixed with latex in the gathering cups. July through September, latex starts flowing again, but due to heavy rainfall there are only 10-15 days per month when rubber can be extracted. The labour process involved differs a lot from other agricultural activities. This is so because most of the labour is done at night time. Latex flows better in the cool night air, therefore, rubber must be tapped (*khriityaang*) then. The labour process commences at around 2 a.m. when the tapping starts. A 30 centimetres long cut is made by a knife to each tree each time. A 25 *rai* (4 ha) rubber plantation takes around 4 hours for an average worker to tap. The tapper needs a kerosene lamp (*kiangchod*) that is attached to his head, a metal knife that is used to cut the tree and a pair of rubber boots to protect his feet from the numerous venomous snakes found in rubber plantations. Incidentally, there were a few people in Ban Ko Kwang who had been bitten by snakes while working in rubber plantations but none had died due to the quick intervention of the local curer (*to mo*). Around 6 a.m. the latex (*yaangngod*) which has flowed to the gathering cups (*kalaphrau*) is collected into buckets. The buckets are then taken home where acid (*namsom*) and water are mixed causing the mixture to solidify. The mixture is then shaped and cut into sheets, which are passed through a hand driven iron press (*chakriidyaang*). The purpose of this procedure is to squeeze the excess water out and flatten the sheets into 3-5 mm thick sheets. The procedure is repeated twice, after which the rubber sheets (*yaangphaen*) are put on bamboo racks to dry in the sun for a few days. Usually by 9 a.m. the labour process that started around 2 a.m. is completed. After the rubber sheets have completely dried they are sold to middlemen who send the sheets to factories for further processing. Unlike the fish dealers, who are women and mostly from the village, the middlemen involved in the rubber business are often outside males (usually Chinese).

subsistence purposes, as the rubber plantation demands most of his attention.

Case 10. Fishing and souvenir stall owner´s household

There are seven members in Kasem´s and Fii´s household. Kasem himself is 48 years of age and born in Ban Ao Nam Mao. His wife Fii is 45 and was born in Ban Laem Pho. Both have four years of formal education. They have six children the two eldest sons having already moved away. The remaining four children are 19, 16, 9 and 6 years of age. Kasem´s 65-year-old mother-in-law lives in the household and helps her daughter in household chores.

The house they live in is situated right on the site of the "Fossil Shell Beach". It is a relatively large wooden house with a roof made of asbestos sheets. The land on which the house stands is owned by Fii. The house has electricity and running water provided by the pipes that are connected to a large well that services visitors to the site.

Kasem has been a fisherman all his life. Like most men of his age, he tried his luck on a trawler in Phuket as a young man. After marriage, the couple settled in Ban Laem Pho and Kasem started fishing with his father-in-law. After a while he was able to purchase his own boat and start independent operations. Kasem fishes mainly with gill-nets *(uan loi)* and *(uan kung)*, although he does use occasionally portable fish traps (*loom*). He owns a 23 *kong* boat which is one of the largest boats in the village. Currently, he has a crew of two men, one being his 19-year-old son and the other his wife´s nephew.

When the "Fossil Shell Beach" was discovered by tourists a decade ago, Fii was one of the first village women to set up a vending stall. She first sold primarily snacks and soft drinks but was quick to discover that visitors liked to buy sea

shells as souvenirs. Ever since that time, Kasem has made regular trips to Ko Rok near Trang province where a lot of seashells can be found.

Kasem has started to catch live *plaa kau* (Yellow Grouper), with portable fish traps, that Fii´s younger daughter sells to a Chinese dealer in Krabi town. These *plaa kau* are much in demand in up-market seafood restaurants in Bangkok.

Kasem is also a member of the village development committee and the village mosque committee where he acts as the secretary (*lekhatikarn*). He is an industrious fellow in the sense that he has written a ten page pamphlet describing the history of the "Fossil Shell Beach", and a section on the Tham Phra Nang (Princess Cave), a place where the local fishermen used to worship the spirit of Phra Nang, a local guardian spirit.[8]

The annual household income is in the region of 65,000 baht, which places Kasem´s household in the high income category in Ban Laem Pho. The proceeds made from the souvenir stall are, of course, seasonal but the family is considered wealthy by local standards.

4.3 MEN'S WORLD, WOMEN'S WORLD

In Thai Muslim society there exists a very clear division of labour along gender lines. There are many parallels with other Asian maritime communities regarding gender relations (see for example Fraser 1966; Firth 1943; Firth 1946; Alexander 1982; Carsten 1989; Stirrat 1989; Ram 1991).

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[8] Although it is beyond the scope of this thesis it is worth noting that local fishermen believe that each bay, coral reef and large underwater rock has a guardian spirit (*chao thi*) that may cause misfortunes if offended. Therefore, there are a number of rituals associated with fishing operations with the aim to seek blessings from the various guardian spirits for successful fishing.

I propose the following simple classification to summarise the division of labour along gender lines in Thai Muslim fishing society:

MEN: POLITICS, RELIGION, EDUCATION, FISHING
WOMEN: COMMERCE, KINSHIP, COMMUNITY, LAND

In other words, men are associated with moral/religious power. They also are responsible for the actual catching of fish. Women are associated with commerce as they are responsible for the distribution of the catch and are financial managers of the fishing households. They are also associated with kinship and community because of the **strong tendency for matrilocal residence**, whereas men are more like "affinal visitors". Recently women have started to invest in land (see Chapter 5, section 5.4 for details).

Such a state of affairs has wide economic and social ramifications on the constitution of the local communities and livelihood strategies within individual households. In the following I examine how the above classification translates into practice.

In Ban Laem Pho and Ban Ko Kwang, as in many other Asian maritime communities it is the men who do the fishing, while women dominate the domestic domain and distribution of produce. Although it is the men who catch the fish, it is the women who sell the catch in the market in Krabi. Due to this arrangement there is an economic **interdependence** between men and women. Although it is the men who produce cash through fishing, women as traders control its use and exercise power within the household. Through their role as fish traders, women act as a conduit through which the ideology of the marketplace enters the village and through their control over cash, women gain a certain power.

There is also a strong association between women and financial management (cf. Chavivun 1989:123-124). Phillips, in his study

of the Thai peasant personality, noted that women have a controlling voice in financial matters (Phillips 1965:48). Almost all monetary transactions of any worth are conducted by females. Thai Muslim fishermen explain that women are better in that sort of thing as they, the males, must concentrate on fishing and, therefore, delegate financial matters to their wives. As one middle-aged fisherman put it: "*ai ryang goern man pen yangni phanrayaa rappichop ryang goern phainai khrobkhrua rau khau khauchai karn syy khai dii kwaa phom phom ook haa plaa thang wan thang khyyn phom waichai phanrayaa nai ryang goern phro khau ruu waa rau mi goern thaurai lae samaat syy arai myarai*" (This business of money is like this. My wife is responsible for the money matters of our household. She understands the buying and selling of things better than me. I go fishing day and night. I trust her in financial matters because she knows how much money we have available and what we can afford to buy and when). Although this is a somewhat superficial explanation on the part of the male, it masks power differentials between the genders and reveals the fact that money is closely associated with the female (see Chapter 5, section 5.1.5 on distribution and redistribution for an explanation of this). It is the wives who plan the consumption of the household. They make the decisions about investing in land or new fishing equipment. Thai Muslim fishing society is by no means the sole case. Drawing on evidence from rural Malay society, Rudie argues that in her research site women have economic power within the household and kin group, while men have higher public religious prestige and authority (Rudie 1994:81).

Writing about Perupok, a Kelantan fishing village in the 1940s, Rosemary Firth comments that:

> All money earned by the fisherman is given to the woman both to spend and to save. The peasants say that this is natural, 'for who should guard the money while we are away all day, if not the woman?' A friend of ours remarked, when his wife was very ill, that it was difficult because he had to keep an eye on the cash, which he could not do all the time when he was out and about working. The same man told us that he did not know exactly how much money his wife had in the house. If he wanted sums for the purchase of boats and nets, he could ask his wife, and she would tell him if she thought they could afford it or not (Rosemary Firth 1943:17).

While conducting the household census in both Ban Laem Pho and Ban Ko Kwang I found out that it was better to ask the women about economic issues as they would give accurate answers while the men would often give wild guesses of the household income.

Besides handling monetary transactions, women also figure in the mechanism of the local credit systems. In Ban Laem Pho and Ban Ko Kwang, men trust that women can better take care of loaning and borrowing money. Alexander (1982), in his study of a Sri Lankan fishing village, Gahavalla noted that:

> Apart from patron and client or advances from middlemen to fishermen, credit is also arranged by the women. All the village moneylenders (eight) are women, as are the revolving credit associations (*sittuwa*) organisers (four), and men can only participate in these through their wives. Women make the financial arrangements for ceremonies, especially weddings or funerals, and the decisions to invest in land or fishing gear, although the actual purchases are arranged by men (Alexander 1982:41).

Besides economic matters, women are thought to be associated with kinship and community (cf. Carsten 1989). In fact, men have little interest or even knowledge of kinship issues, as I found out when I attempted to discuss the matter with men. They quickly got bored and changed the subject. On the other hand, when the subject was brought up with women, they could

discuss it endlessly. Instead of kinship, men preferred to discuss religion, politics or fishing with me.

While men do most of the fishing, women do all the household chores and participate in agricultural production (growing rice) mainly for subsistence. Men go out fishing and are away from the community sometimes for long periods of time. In addition, due to the stress on village exogamy it is the men who move into the village from outside while the women usually stay in the vicinity of their parents´ households. Women associate with others of the same household, with kin and neighbours. Women stay in one place and represent continuity of the family, while men come and go and are more like "affinal visitors". At the core of the house is the *khrua* (the hearth), where meals are cooked by women and are eaten by co-resident household members. The model of community is a collection of similar households, dominated by women, united by close consanguineal ties. Women are therefore endowed with the qualities of kinship and community.[9] Politics, religion and education, on the other hand, belong primarily to the men´s world.

As in Thai Buddhist society, Muslim women handle the monetary transactions, which are seen to be associated with the material world. Religion on the other hand is about the non-material world. According to the local world view men are thought to be the upholders of religion. This is reflected in the fact that few women attend the prayer sessions (*lamat*) in the village prayer house (*surau*). While both boys and girls receive basic instruction in Islam every Saturday and Sunday morning, it is mostly boys who continue religious studies in the religious schools (*ponoh*).[10] As Yi, one of the mosque

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[9] Women are closely involved with such household rituals as the house blessing ceremony and blessing of the new hearth, which reflect the close relationship between women and the house and the community.

committee members commented to me: "*Phuchai tong khauchai lae syksaa islam phro phuchai mi nathii rapichoop karn praphyt khong khrobkhrua thi satsanaa sang vai phuying tong syksaa islam suai tae thaa ru phyynthan ko pho*" (It is important for the men to understand the way of Islam, as they are responsible for keeping the family on the right path. Women must also learn about Islam, but it is not necessary for them to know more than the basics.)

Politics is also a men´s matter. Practically the whole authority structure of village life is under men´s control. Village heads (*phu yai ban*) and deputy village heads (*phu suai*) are exclusively men. The members of the village development committee (*kammakarn pattana muban*) and the mosque committee (*kammakarn masjid*) are exclusively men. This does not mean that women do not figure in decision-making. However, they are always in the background. For example, in the case of Ban Ko Kwang, one of the village head´s married daughters helped her father in keeping the village register on births and deaths, filled out land tax certificates on behalf of the chief and did other administrative work. Village head Kasem commented that she was better in such matters and had delegated the tasks to her. Nonetheless, when the village matters had to be presented to the district officials the village head himself took care of such business.

The division of labour along gender lines as discussed above are related to the way the economy, kinship, politics, religion and education are perceived. In Thai Muslim society religion, politics and education are public matters, while

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[10] Ponoh refers to the Koranic schools found in the Muslim dominated provinces of Pattani, Yala and Narathiwat. According to the 1954 Private Schools Act the government assists the religious schools with personnel, buildings, equipment and teaching material. Essentially, the Koranic schools are places where youngsters (mainly boys) receive an Islamic education with some state curriculum added (Watson 1980:174-175; Chavivun 1989:128-129; cf. Surin 1985:175-187).

kinship and economy are private matters in village society. Religion is about *hakkulalloh* (between man and God). Politics is about *hakkuladam* (between man and other men). Both secular and religious education prepare men to deal with these issues. As such, religion, politics and education are conceived to belong to the public realm; therefore, it is thought that men should take care of such matters. Kinship and economy, on the other hand, are thought to be private issues either between buyer and seller or between individual kin relations. As such they are conceived fit for women to take care of.

It is important to note that the worlds of men and worlds of women are interdependent of each other. In the next chapter I will describe in more detail the division of labour in which the men do most of the fishing while the women act as financial managers and take care of the distribution of produce. While men dominate the religious and political scene in terms of acting as ritual specialists, taking care of the spiritual needs of people and dealing with the formal relations between the fishing village and the outside world i.e. the state, catching fish (see next chapter); women dominate the economic sphere, represent continuity of the household and link the household to land. Neither could do without the other.

4.4 CEREMONIAL AND SOCIAL NETWORKS

Village exogamy prevails among coastal villages and because of this pattern most relatives or at least one relative resides somewhere else. Neighbouring villages have relationships that are established through marriage ties which serve as basic channels of inter-village contacts. The most prevalent form of usage of these relationships is participation in the various feasts that occur throughout the year. In these feasts, relationships are strengthened and exploited for various purposes.

In Krabi area these feasts are commonly called *nuri*. Fraser (1966:36) notes that in Pattani these feasts are called *Makan pulot*.[11] Often the Thai word *thambun* (to make merit) is also used. *Nuri* ceremonies mark important transitions in an individual´s life cycle such as births, naming ceremonies, circumcision ceremonies, marriages and deaths. All these occasions are called *nuri*. In addition, important religious occasions such as *Maulid* (The Prophet´s birthday) and *ok buat* (the day after the month of fasting is over, also sometimes referred to as *hari raya*) are called *nuri*. Also the *Puleh*-ritual discussed in the next chapter is also sometimes referred to as *nuri*.

Above all, the *nuri* ceremony is a prestige-enhancing social event. Friends and relatives are invited to take part in the *nuri* ceremony. Often important men like the village head and religious leaders are also invited as their presence brings extra prestige to the host. Refusal without very good reason would be a grave insult to the host. In the morning, a goat and chickens are killed then women prepare the food. Always the best dishes such as goat curry, pineapple and fish curry and saffron rice are prepared. The ceremony itself is simple. People come together to the host's house and exchange greetings. Then the men sit in an inner circle and proceed to read the *Quran* in Arabic as women sit and watch from the kitchen door and outside the house. Passages appropriate for the event are read and prayers are said. For example, in the *Maulid* ceremony, men took turns in reading passages about the Prophet´s life. After this each participant was sprinkled with a fragrant mixture of water and talcum powder and *doah* (blessings) for the participants was requested from Allah. The event was followed by a communal meal. Interestingly enough, the host family eats after the guests have finished. After

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[11] In many respects the *nuri* ceremony resembles the *slametan* in Java (see Geertz (1960)).

this each guest contributes a cash gift (*bia*) as a payment for his/her meal to the host family. The sums range from a few baht to fifty or sixty baht depending on the financial standing of the guest. After this, people disperse and the ceremony is over.

In the future, the guests to the *nuri* ceremony will invite the host to the *nuri* ceremonies they in turn sponsor. This creates a web of relationships in which favours and obligations are reciprocated. The *nuri* ceremony is a kind of basic building block for the village social life. Each household will hold at least one *nuri* in a calendar year, sometimes more if there are any special events in the life cycle of household members. This means that there is a *nuri* ceremony going on in the village quite frequently.

The cost of holding a feast depends on how many people are invited. It is not uncommon for the host to suffer a financial loss from holding a *nuri* ceremony. However, what is lost in money is gained in social prestige and reinforcement of social relationships that may be invoked in times of trouble.

While the *nuri* ceremonies form basic blocks of village social life for both sexes, the social networks that women establish among themselves in market places from an economic point of view are as important as *nuri* ceremonies. Rudie writes that the market place is an important arena for interaction in the life of Kelantan women in Malaysia. She notes that, "trade is the activity that has played the biggest role in bringing women into the public place. It has been part of the division of labour between the sexes, and it has grown into a speciality" and that trade "has been an active force in networking" (Rudie 1994:197). Similarly for Thai Muslim women in Krabi, the market is the place where they establish social networks with friends from neighbouring villages that can be manipulated when credit needs to be raised in times of need (see next chapter). Thursday is a market day at Ban Nong

Thale. Here, villagers from over a dozen villages, including Ban Laem Pho and Ban Ko Kwang gather to buy and sell products and exchange gossip. Products are simply laid in little piles on straw mats spread along the roadside. Women dress in their best clothes and proceed to the market to attend to their sales and meet friends. The market day is a festive occasion where extra money is spent on treating friends for a special dish of saffron rice and curried chicken or a cup of sweetened coffee. Here potential brides are viewed by young men who move around in small groups. Men exchange views on fishing and rubber prices. Young girls learn the art of trade with their mothers. Above all, social networks that individuals may utilise when they travel in the area on their various trips are built and reinforced here.

Social networks between fishermen from villages along the Phangnga Bay are of primary importance to fishing operations. Fishermen who tend to operate in a certain area know all the other fishermen operating in the same area. They often can recognise each other's boats from a distance from the coloured ceremonial strips of cloth that are placed in the front of the boat in honour of the guardian spirits of boats. Should the engine break down while fishing, a fisherman can rely on other fishermen to come to the rescue. While specific fishing locations are jealously guarded secrets, fishermen like to share information on weather conditions, market prices of particular fish species and the success/failure of particular fishing trips.

4.5 THAI MUSLIM VILLAGERS IN THAI SOCIETY

How does religion differentiate Thai Muslim fishing villagers from other people in Thai society? Burr writes that in her research sites in Songkhla province, the Thai Buddhists refer to their co-villagers as *khon khaek* and that the Muslim villagers' dialect spoken in the provinces of Pattani, Narathiwat and Yala, is in Krabi limited to a few members of

the older generation or to those who have had the opportunity to study in some of the religious schools (*ponoh*) of the above mentioned provinces.[12]

In addition to language, as noted in earlier sections, the Thai Muslims and Thai Buddhists share a common social structure including bilateral kinship, arranged marriage rules, systems of bridewealth, residence patterns, and inheritance patterns as noted in an earlier section. Keyes rightly observes that, "Thai-speaking Muslims in southern Thailand, as well as Thai Muslims elsewhere, recognise that their religion makes them different from other Thais but, to date they have tended to accentuate their "Thainess," as manifested in their language and sense of shared tradition with other Thai, rather then their religion" (Keyes 1989:131).

Burr maintains that the Muslims in her research site do not form a distinct, on-going group with a clearly defined separate socio-economic and political structure (Burr refer to the former as *khon thai* (Burr 1972:185-186). The Thai Muslim fishing villagers in Krabi, on the other hand, prefer to be referred to as *khon thai islam*, not as *khaek*.[13] At times the

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[12] *Ponoh* refers to the Koranic schools found in the Muslim dominated provinces of Pattani, Yala and Narathiwat. According to the 1954 Private Schools Act, the government assists the *ponoh* with personnel, buildings, equipment and teaching materials. Essentially, the Koranic schools are places where youngsters (mainly boys) receive an Islamic education with some state curriculum added (Watson 1980:174-175; Chavivun 1989:128-129; cf. Surin 1985:175-187).

[13] *Khaek* means a visitor and is usually given to people originating from South Asia and Arab countries. Among some Thai Buddhists the term has slightly derogatory overtones. For example, Arong writing about the relationship between Thai society and the Malay-speaking minority notes that, "In addition to the role of Buddhism, way of life has effectively served as a criterion of Thainess. Dress is one good example. Although it was never explicit as to what kind of dress is associated with Thainess, the dress as is worn by the Southern Muslims, or Chinese or Indians is definitely un-Thai and stereotypically ridiculed in various ways by assigning the terms such as *Khaek, Bang, Emae, Sim* (Chinese) etc" (Arong 1989:95). The derogatory connotations of the term *khaek* are,

Thai Buddhists in Krabi refer to the Muslims collectively as *phuak islam* (the Islamic group).

The Thai Muslim fishing villagers are not an ethnic minority, rather they are a religious minority. The state officials, however, often confuse them with the Malay Muslims who live further south towards the Malaysian border. The Thai Muslims of Krabi identify themselves as being Thai. They prefer to refer to themselves as *khon thai thyy satsanaa islam* (Thai people upholding Islam as religion). The Thai Muslims share a common language with the rest of the population. The language spoken in Krabi by both Thai Muslims and Thai Buddhists is *paktai* (Southern Thai).[14] There are rubber tappers and others who make a living from agricultural activities like their

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however, more associated with Central Thai speech than Southern Thai speech. Diller argues that, "in rural Southern Thai speech the form *khaek* is effectively devoid of negative nuances, whether used by Buddhists of Muslims or by Muslims of themselves. In speech at this level *khaek* and *thai* function to establish a useful daily life contrast; rural speakers using these terms are involved neither in ethnic slurring nor in pursuing legalistic definitions of modern nationality (*sanchaat*)" (Diller 1991:164-165). For a thorough discussion on the etymology of the term *khaek* see Diller (1989).

[14] *Paktai* dialect, although close to Central Thai, is often incomprehensible for those people from Central Thailand and especially Bangkok (see Brown (1965) for a detailed analysis of the various Thai dialects). In the early part of this century Gerini noted this: "*C´hau Nok* = people from the outlying province of the Kingdom: in this case meaning the inhabitants of the Malay Peninsula. The line of demarcation between *C´hau Nai* or the people from the Inner Provinces and the *C´hau Nok* is formed, on the Malay Peninsula, by the Three Hundred Peaks or *Sam roi yot*, range which virtually separates continental from peninsular Siam. As far as this line the language spoken is practically that of the capital, i.e. Standard Siamese; whereas beyond that it abruptly changes into the southern dialect, distinguished from standard Siamese not only by an admixture of heterogenous words (mostly survival of aboriginal and primeval settler´s idioms), but also by peculiar tonal inflections which deserve the earnest attention of philologists. This is the *Bhasa C´hau Nok*, typified in the Ligor dialect, which draws such roars of laughter when put in the mouth of actors and puppets at the theatricals and shadow plays of the Siamese capital and neighbouring districts" (Gerini 1905:111).

Buddhist counterparts in inland communities. However, in Krabi, unlike Burr´s research sites in Songkhla, small-scale fishing is exclusively practised by Muslims.

Besides these factors, the cognitive world of the two groups are similar. According to Burr, Thai Islam and Thai Buddhism share the beliefs in the spirit world (Burr 1972, 1974). Komin, in a study of values and behavioural patterns in Thai society, notes that, in fact, the value difference between rural Thai Muslims and rural Thai Buddhists is much less than the value difference between the rural Thai in general and the urban Bangkokians (Komin 1991:91).

Often, and this is especially true from the part of state officials as will be explained in a moment, too much weight is given to religious differences between Thai Muslims and Thai Buddhists. The politicisation of religion in some parts of Southern Thailand has unfortunately lead to serious problems (see Surin (1985) for a detailed discussion of this). Chavivun reports that in her research site in Pattani Malay Muslims and Thai Buddhists rarely interacted with each other on a personal basis apart form purely commercial relationships and that there was even some hostility between the two groups (Chavivun 1989:139). Krabi´s Muslim and Buddhist populations, however, get along with each other well despite their religious differences.

Although the Thai Muslims do not consider Islam to be a dividing issue, within the eyes of the officialdom it is religion that makes the difference between the Krabi fishing villagers and others. The state makes the Thai Muslim more different from the rest of the society than they really are mainly because lack of intimate knowledge about the Thai Muslim fishing villagers. In other words, religion becomes politicised not because of the Muslims themselves, but because of the qualities the state endows upon them.

Thai Muslims in Krabi, and for that matter throughout the coast of the Andaman Sea, are different from the Malay Muslims in Pattani, Narathiwat and Yala. The latter are a distinct ethnic minority and have different history, language, and traditions (see Fraser (1966) for an account of the Malay Muslim fishermen in Pattani). Nevertheless in the eyes of the state the two become one and are treated as a distinct problem group that should be integrated to mainstream Thai society as rapidly as possible. Thai Muslims in Krabi have not at any point joined any Malay separatist movements, although they are quite conscious of the problems the Malay Muslims have experienced in the past. Nonetheless, they have suffered from the heavy-handed actions of ignorant local government officials who have little appreciation or interest in the Thai Muslim way of life.

Part of this problem lies in the insecurity of the state representatives who originate from other regions of Thailand. Whether true or not Southern Thailand has a reputation of being a fearsome place where rival gangs are engaged in feuds with each other. For instance, many Bangkokians with whom I had discussions about Southern Thailand would characterise the Southerners as stubborn (*hua khaeng*) and quick to anger (*du*). This is an image that is often bandied in many Bangkok newspapers.

Although these qualities are endowed upon the Southerners by outsiders and are debatable there are some real behavioural distinctions between the South and other parts of Thailand that are probably related to ecology, family process, local history and culture (Polioudakis 1989; cf. McVey 1984). These distinctions are manifested in a kind of Southern regionalism. This regionalism is manifested through a feeling of dislike for the central government and its representatives and pride in the local dialect, culture and history. The roots for this regionalism may be traced to history. In the 19th century Southern Thailand was a tributary territory separating the

Thai and Malay social formations (Elliot 1978:64). Although being loosely linked to the Siamese kingdom the South and especially the western coast were largely left to their own device as long as they acknowledged the supremacy of the Bangkok court and paid tribute (McVey 1984:110). As pointed out in chapter two it was only towards the end of the 19th century that Krabi was integrated to the Thai state and a governor was appointed as the representative of the state.

The state on the other hand has attempted to curb regionalism and to integrate the rural communities into the mainstream Thai society. This is evident, for example, in the language policies implemented in Krabi. In village schools only the central Thai dialect (*phasa klang*) is allowed to be spoken (cf. Diller 1991 on standardisation of the Thai language). In addition, the curriculum followed in village schools is exactly the same as in other schools throughout the nation. No emphasis is given to local history nor to Islam. Above all, the aim of education is to make good, law abiding citizens with a strong sense of nationhood out of the rural youth.

The state has been fairly successful in its language policies. Most of the younger generation speak and understand central Thai. Many members of the older generation, however, resent speaking central Thai and prefer to use the local dialect instead.[15]

Besides language policies the state maintains its presence in coastal villages in more tangible ways. Police booths are set up in the villages or in their vicinity to maintain law and order and to remind the villagers that they are a part of a larger entity known as *prathet thai* (Thailand).

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[15] As Lat stated, *"tha laeng klang man ook pen thoeng daeng"* (If I speak central Thai it will come out as impure , *thoeng daeng* meaning copper and referring to tainted and impure language that is neither central Thai nor *paktai*.

In the Thai Muslim villages there is a sense of dislike towards the state that is often voiced in statements of criticism of corrupt officials who are thought of as unwilling/incapable of doing anything to stop the trawlers encroaching the coastal waters in which the small-scale fishermen operate.

One of the problems between the state and Thai Muslims is the fact, that the concept of "Thainess" is indicated in the three frequently linked terms *chart* (nation), *satsana* (religion) and *pramahakasatra* (monarchy) (Arong 1989:94).[16] While the Thai Muslims have no problem with the concepts of *chart* (nation) and *pramahakasatra* (monarchy), *satsana* (religion) is a cause of some tension. This is because *satsana* in Thai society is associated very strongly with Buddhism (cf. Keyes 1989). When the 3rd Environmental Seminar of Southern Thailand (see chapter eight for details of this meeting) was held there occurred an incidence, that exemplifies this tension by the ideology that is attached to the term *satsana,* which may occur with some Thai Muslims. The seminar was opened by the deputy-governor of Krabi and everyone present was asked to stand up to pay respect to the Thai flag, picture of the monarch and a Buddha statue that were displayed in front of the seminar room. The participants of the seminar included both Muslims and Buddhists. While the majority of the participants including many Muslims stood up to pay the respects to these national symbols, I noticed that a number of older Muslim fishermen sitting in the back declined to stand up at all. No one mentioned the incident and I doubt whether the state officials even noticed what happened. The point, however, is that the fact that some older fishermen refused to pay respects to the national symbols was a form, of what Scott (1985) calls, passive resistance on the part of the dominated.

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[16] The Thai king himself is a religious figure and is seen as the protector of Buddhism.

At times, civil disobedience is used to express the dissatisfaction towards the state. A few years ago twelve young men from Ban Ko Kwang and neighbouring villages disobeyed orders to go to the local military headquarters to register for compulsory service and to pick the lottery ticket (*chap bai dam bai daeng*), which would determine who would be chosen to serve in the army. The situation ended with the use of force as the individuals who disobeyed the orders were rounded up and sent to army anyway. The reason for the disobedience, as related to me by one of the participants, was that the young men thought that the military service was a waste of time and that they disliked serving in what they saw as a corrupt army. Another reason for disliking the army is that village elders think that some of the boys who go to do their army service are introduced to heroin (*phong khau*) while doing their service.

If the villagers dislike the state and its representatives, the latter feel equally insecure and dislike dealing with the villagers. This was demonstrated to me when I had the opportunity to observe the visit of the provincial deputy-governor´s inspection trip to a mangrove reforestation project in Ban Laem Sak, a fishing village in northern Krabi. Three hours before he arrived to the scene two truckloads of soldiers equipped with M-16 rifles came to secure the area. A tent and a platform was constructed in the village market and the villagers were herded up to wait for the arrival of the deputy-governor and his troupe. After some waiting, the deputy-governor arrived, gave a short speech about the importance of conservation of mangroves and of the importance of being good citizens and setting an example to other fishing communities. The speech was followed by a brief visit to the mangrove reforestation site where the deputy-governor planted a mangrove sapling, after which he and his troupe left the village and headed back to Krabi town. At no stage were there any dialogue between the villagers and the state

representatives. Rather, the whole incident resembled a display of power on the part of the state representatives.

To be fair, it must be mentioned that there is a number of Thai Buddhist officials who hold a positive attitude towards the Thai Muslims and who are respected by the latter. Often, these officials are southerners themselves (cf. Arong 1989:105 for the situation in Pattani). Also in recent years, there are a number of Thai Muslims who have received higher education and are working as officials within the public sector. Such a trend will no doubt help bridge the gap between Thai Muslim villages and the state.

Now that the social context in which people's lives are embedded has been presented it is appropriate to follow with a detailed analysis of sources and patterns of livelihood in Ban Laem Pho and Ban Ko Kwang.

PART III SOURCES AND PATTERNS OF LIVELIHOOD

5. MAKING A LIVING

When I first began to do fieldwork in the villages I was under the impression that all the village households were engaged in fishing as the main source of income. This impression was also supported by the fact that the villages were referred to by outsiders and a great majority of the villagers themselves as *muban chao pramong*, which glosses over as fishing villages. The image of the villages consisting of fishermen was reinforced by the numerous fishing boats found along the beach and the nets drying on bamboo poles in front of houses. People in Krabi town knew the villages for the marine produce that was sold in the market. All this is true and fishing is still the most important source of income for over a half of the village population (see Chapter 3, section 3.1.2 for details of the main sources of household income). However, in the course of my fieldwork it became apparent that there were a host of other income-generating activities that villagers were engaged in. Therefore, the characterisation of the villages as fishing villages is not entirely correct. As noted in Chapter 2 the Andaman Sea region of Southern Thailand has been involved in the rapid transformation of the regional economy for over a decade and the repercussions of this transformation are very much visible in the coastal villages of Phangnga Bay. Part of this transformation has meant that fishing no longer is the sole source of income for village households, but that there are a host of other activities that compete with fishing and provide better opportunities for individuals who are apt to engage in the new activities. The objective of this chapter is to explore the various income-generating activities that villagers engage in and by doing so to illustrate the transformation of the livelihood structure that the maritime communities along the Andaman Sea are undergoing.[1] Ban Laem

[1] I wish to note that in the course of fieldwork I collected more information concerning fishing activities than non-

Pho and Ban Ko Kwang are by no means the "typical Southern Thai villages", if such a category even exists; however, the shifts in the sources and patterns of livelihood that are taking place in these two villages are a graphic, at times almost grotesque, illustration of a social process occurring throughout the Southern Thai coast.

5.1 SMALL-SCALE FISHERMEN

5.1.1 LOCAL MARINE ENVIRONMENT

The physical oceanography of Phangnga Bay was introduced in chapter two in some detail. It was noted that there are hundreds of islands and islets in the bay. These islands and islets are surrounded by species rich coral reefs (*pakarang*), where a great variety of fish species are found (cf. Boyd and Piprell (1990); see Appendix II for details of fish species that inhabit the coral reefs).

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fishing activities. Fishing still is by far the most important income-generating activity in both research sites comprising nearly half of the economic activities that villagers engage in, whereas non-fishing activities such as trading, agriculture and wage labour combined comprise the other half. As fishing has historically been the most important base for peoples livelihoods there was a wealth of information available to be explored. In contrast with such relatively recent forms of income-generating activities as wage labour in the tourist industry and the gypsum pier there is a much more scant base of knowledge to be explored. Obviously, this will change in time as the new forms of income-generating activities become institutionalized in village life. I have, nevertheless, attempted to provide the reader a balanced account of the various sources and patterns of livelihood in the communities of Ban Laem Pho and Ban Ko Kwang.

The mangroves (*paa kongkan*) that are found along the coast are crucial links in the local marine ecosystem.[2] The primary productivity of the local zooplankton population in Phangnga Bay is high because of the influx of nutrients from mangroves and estuaries within the bay area (Manuwadi and Prawin 1988:17). The mangroves are nurseries for marine life. Their plant and animal communities are unique and many animals like small-clawed otters, fishing cats and silvered languors live in the swamps. The villagers acknowledge the importance of the mangrove swamps for their livelihood. Not only is the mangrove swamp a source of food, medicine, and fuel, but also it protects their homes against storm winds and tidal waves (cf. Sanit et al 1986). As Table 7 shows the local mangrove forests are rich in variety.

TABLE 7. MOST COMMON MANGROVE SPECIES FOUND IN PHANGNA BAY

Scientific name	Local name
Acanthus ebracteatus	*ngueakpeamo sikhao*
Avicennia alba	*samae khao*
Avicennia officinalis	*samae dum*
Bruguiera cylindrica	*tua khao*
Ceriops tagal	*prong*
Excoeoaria agallocho	*tutum*
Rhizophora apiculata	*kongkang bailek*
Sonneratia caseolaris	*lam pu*
Thespesia populnea	*po le*
Xylocarpus granatum	*taboon khao*

(Sources: Information I collected from Krabi fishermen; Sanit 1988:288-291.)

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[2] The mangrove tree is remarkable for the way in which it sends numerous prop or stilt roots into the water creating an almost impenetrable jungle known as the mangrove swamp. Silt carried away by tides into this tangled mass forms new land, in which other vegetation takes root. The average mangrove tree grows to the height of 12 metres. It has thick scarred branches and oval, leathery leaves. An interesting feature of the mangrove tree is that the plant excretes excess salt from its leaves. The mangrove tree produces small four petalled yellow flowers that are followed by cone shaped, reddish-brown fruit about 25 millimetres long. Each fruit contains a single seed that develops a long sprout while still on a tree. Upon falling, the seed often is carried a long distance before taking root.

The vast mangrove swamps near Ban Laem Pho are magnificent. Meandering through limestone outcrops they cover over 12 square kilometres of tidal mud flat where the river opens to the sea. Here the soil is unstable, waterlogged and inundated by saline or brackish water twice a day. The primary species is the *Rhizophora* species with their outstretched branches laden with orchids and ferns. The stilt roots arch gracefully and some trees grow numerous finger-like protrusions above the mud's surface to absorb air into the root system.

Little archer fish swim among the flooded tree roots. They can shoot insects sitting on mangrove leaves from several meters. When the tide recedes little turquoise, yellow and red crabs emerge from their mud holes to feed on the detritus rich mud. The animal species of the mangrove forest include crab-eating macaques, otters, snakes, turtles and bats. Bird species include herons, warblers and sparrows among others.

Local fishing communities depend heavily upon the mangroves. Besides supplying the population with animal protein from fish, molluscs and crustaceans that can be found in the swamps, the plants themselves provide many uses like fruits and thatching from *Nipa* palm and tannin from mangrove bark for tanning leather among others. For example, the upper leaves of the *Rhizophora apiculata (kongkang bailek)* are eaten as a vegetable, while the pods of the *Avicennia alba (samae khao)* are boiled for their edible seeds.

The mangrove plant has medicinal uses as the bark can be utilised. The powder from the *Rhizophora* bark can be used to cure diarrhoea by being boiled for its juice and to stop bleeding by being crushed and placed on the wound. The stem of the *Avicennia alba (samae khao)* and *Avicennia officialis (samae dum)* is boiled and the extract is used as a cure for general debility. *Xylocarpus* (taboon) seeds are also used to treat diarrhoea and the *Acanthus* species can cure skin rash. In addition, village ritual specialists (*to mo*) use the

mangrove bark powder (*phong ba*) in the annual boat blessing ritual known as *Puleh* (to awaken the spirits of the boat).In addition, the mangrove swamp is a source of strong and durable *Rhizophora* wood that is useful in making fishing equipment like poles for fixing nets and fish traps.

5.1.2 FISHING PRACTICES AND TYPES OF CATCH

There are currently seven major types of fishing practised in Ban Laem Pho and Ban Ko Kwang. The most important in terms of the number of independent operators, is fishing with line-hooks from a boat. The second and an increasingly important type of fishing is making squid traps. The third, is using a portable fish trap. The fourth, and the most important in terms of potential yield is the nylon gill net, which are set out into the sea and pulled on board the boat. There are three types of gill nets used in the area. A fifth type of fishing, which requires considerable investment is building large weirs on the shore and relying on the tides to catch fish. A sixth type of fishing is using a net-like device in front of the boat and scooping whatever enters the device while riding the boat. Finally, a variety of subsistence fishing techniques are used in shallow water off the beach. (See Appendix I for a detailed discussion of contemporary fishing technology used in Phangnga Bay).

No individual fisherman uses all these types of fishing, rather a different combination of techniques is used depending on the capital available, ecological factors, market conditions, skill, and choice of the individual.

While everyone is able to afford hooks and line and almost everyone make squid traps or portable fish traps (*loom*), only households with the necessary capital can fish with gill nets or construct a large weir (*po*). Ecological factors govern what method can be used where and when. Changes in the wind, the weather and the migration patterns of fish affect the choice

of technique. Market conditions also affect what fishing method is utilised. Matters of skill are also a factor. Constructing traps is a relatively easy task compared with constructing a *po* or even being successful in handlining. Some individuals prefer one technique to another even though they would be able to use another technique. The basis of preference is usually dictated by experience. For example, Kasem, a fisherman from Ban Ko Kwang, told me that he preferred squid traps (*sai myk*) and portable fish traps (*loom*) to handlining as he thought the former two were more reliable methods of fishing than handlining, which requires considerable experience to use in order to obtain good catches.

The seasonal rhythms, spawning times, migration patterns of fish, phases of the moon, the tidal rhythms, all these have a direct relationship with the daily life of the fisherman. When to fish, where to fish, how to fish, all these are questions that the fisherman faces each day. The answer depends to a very large extent on the knowledge of the cycles and rhythms of the environment in which he operates (see Table 8).(See Appendix V for a detailed discussion of the cycles and rhythms of nature and the way local fishermen understand their environment).

TABLE 8. SEASONAL FISHING PATTERNS[3]

	MONSOON May-Oct.	WINTER Nov-Feb.	HOT SEASON March-April
WIND	Strong westerly winds	Gentle sea breezes	Steady breeze
CURRENTS	Strong currents	Soft currents	Steady currents
FISHING GROUNDS	Bad fishing, Reef gleaning near the shore	Best months to fish, outer reefs, migratory species in the deeper waters of Phangnga Bay	Inner coral reefs
EQUIPMENT	*Hae, Loom, Bet*	*Loom, Sai, Sai, Po, Uan, Bet, Bet Raw, Uan, Uan Run*	*Loom, Uan, Po, Bet, Bet Raw*
SPECIES	Coral Reef Fish	Migratory species, Shrimp, Squid	Coral Reef Fish

[3] If compared with agricultural seasons, there is some complementarity. Rice fields are ploughed and rice is planted in August and is harvested in December. While men participate in ploughing of the land, it is women who do the harvesting. This way rice cultivation does not interfere with the fishing cycle very much. As for rubber plantations, the period from October to February is good with an average yield of latex around 20 mornings per month. In March and April the production decreases to around 15 mornings per month as this is the dry season and latex tends to dry up. May and June are the worst months as the monsoon season sets in and there are only 5-10 mornings per month when rubber can be gathered. Both men and women tap rubber, especially if the household relies solely on rubber production for livelihood. However, if the man is involved in fishing activities, his wife takes care of the rubber plantation.

There is a great variety in the fish species, molluscs and crustaceans that the fishermen catch from Phangnga Bay. The catch differs according to season, place and method of catching. There are over 110 fish species that the fishermen regard as having food value. This category excludes many fish species that dwell in coral reefs because they are either too small to be worth catching or are poisonous. In Appendix II, I have listed the fifteen most common fish species caught in the area. These are fish species that are mostly available throughout the year and do not need long fishing trips unlike many migrating, but nevertheless valuable fish species.

Local fishermen divide the fish species found in Phangnga Bay according to habitat which includes three categories: coral reef (*pakarang*), sand-bottom (*phyyn saai*) and free-swimming (*wai thuapai*). A great variety of fish live in the coral reef habitat. The species that have any nutritional and commercial value include groupers, snappers, spinefoots, barracuda and bream. These are mostly caught by traps (*sai* and *loom*) and line-hooks (*bet*). As they are a sedentary species they are available throughout the year. Most of these fish are of a low economic value and are caught mainly for own consumption. There are a few valuable species though, like the Greasy grouper (*kauchudnamtaan*) and Yellow grouper (*kaubangchaak*) which are popular in sea food restaurants and can reach up to 80 baht per kilogram. The species that inhabit the sand-bottom are low and middle value fish like rays and halibut. They are also available throughout the year and are caught by nets (*uan loi*) and line-hooks (*bet raw*). The third category, the free-swimming species are divided into those species that are available throughout the year and migratory species that are available only during specific times. The former include mainly various shark species. Of the sharks, Walbeehm´s sharp-nosed shark (*chalaamhuyai*) is a very common species in Phangnga Bay. Local fishermen do not like to fish sharks as its meat is not tasty. However, the White-spotted shovelnose ray (*ronan*), which the locals call *chalaamdau* or Star shark is

sought after as its fins can reach up to 300 baht per kilogram. The migratory species are mostly of high value like mullets, mackerel, scads, tunas and anchovies that are caught by drift gill nets (*uan loi*) and line-hooks (*bet raw*).

At this point it must be mentioned that fishermen take great pleasure in debating about the behaviour and qualities of different types of fish. Almost every time a boat lands on the beach people gather around the boat to see what fish species have been caught. This brings excitement to the day. Sometimes when rare species have been caught and the younger fishermen are not able to identify the right species an older expert fisherman is asked for his opinion. It is not uncommon for groups of fishermen to debate over certain fish species that look physically very much alike. Only the more experienced ones will be able to tell differences between similar fish species.

Appendix III lists molluscs and crustaceans that are caught mainly for own consumption. The exceptions are squid, lobsters, tiger prawns and one particular species of shrimp that have high commercial value. Squid are an increasingly valuable species and are caught in great quantities by traps (*sai myk*) and line-hooks (*bet myk*). Perhaps the most valuable species are the increasingly difficult to find lobsters that are caught and sold alive to tourist resorts can fetch up to 200 baht per kilogram. The common snapping shrimp (*khoi*) is caught by using *uan run* in great quantities after the monsoon season is over. The shrimp are dried by the women in the sun and ground into a fine paste which is mixed with chillies and salt and the and result is a paste (*kapi*) which is eaten with rice with great relish.

In addition, many coral fish are also caught alive and sold to aquarium fish dealers that send the fish to Europe, Japan and the United States via Singapore. This activity has been going on for only a couple of years and there are only a few men in

Ban Laem Pho who are engaged in this activity. Some other fishermen have expressed interest in catching aquarium fish, and currently the dealers are interested in expanding the business. The fish are caught by using portable traps (*loom*), that are placed at the edge of a coral reef. The problem with this activity is that obviously the fish must be kept alive in the trap until the dealer comes to buy the catch. In addition, only certain species (see Appendix IV for details) are bought and they must be in healthy and good condition for the dealers to accept them.

Almost anyone can take a boat out to sea, throw a line with a hook into the water and wait for the fish to take the bait. However, only those with knowledge about fishing are likely to get anything out of the trip save sunburn and a severe thirst.

The small-scale fishermen of Phangnga Bay have an intricate understanding of the environment in which they operate. Although most of them have never seen a map in their life, they do not have any difficulty in navigating in the local waters. They have a mental perception of the area in which they fish. One must know the depth of the sea, the location of the coral reefs and rocky areas, underwater rocks, sand bars, places where there are strong currents, the best fishing grounds and so on. In addition to these factors, one must know, as already discussed above, the rhythms of the nature and the behaviour of the fish in order to be a successful fisherman. Experience (*prasoppakarn*), observation (*du au*) and knowledge (*khwam ruu*) inherited from past generations form the basic building blocks of local knowledge that is vital for successful fishing. As in any occupation, there are those who are experts in their field and know everything there is to be known about fishing and the sea. These fishermen are usually old fishermen who through life experience have learnt their trade inside out. An example of such an expert is Lat, who not only knows about the cycles of nature and behaviour of various fish species, but knows the best fishing grounds in the area.

While he will divulge any information about the former two issues, the best fishing spots are secrets that he keeps as his personal knowledge. This is particularly true regarding the exploitation of sedentary species like lobsters, because should every one know the location of lobsters they would soon all be caught and become extinct from that location. On the other hand, fishermen exchange views about the location of migratory species as there is little sense in keeping such information secret since the fish will not be in a given location for long.

Locating good fishing spots is not an easy task. For the average city dweller all sea looks the same. Out there, it is difficult to tell the distance to the shore or the depth of the water.

Phangnga Bay is the area of fishing operations. The landscape along the shore is mountainous and certain peaks are used as basic landmarks in navigation. The most important landmark is Khao Haang Naak, near the village of Ban Ko Kwang at Ao Nang (Ao Nang Bay). This 498 metres high mountain can be seen from great distances and if one should get lost, one just needs to head towards the mountain and one will find home. To the west of Khao Haang Naak lie the islands of Ko Yao Yai and Ko Yao Noi. These two large islands are always to the west and can be used as landmarks in navigation. In between the mainland and these islands there are a number of smaller islands that all have individual shapes. Again, by memorising the position and shapes of these islands one can not easily get lost. To the south-west of Khao Haang Naak lies the tip of Ko Yao Yai and from there begins the vast Andaman Ocean. To the south of Khao Haang Naak lies Ko Phi Phi, a major fishing ground that is visited by fishermen from not only Ban Ko Kwang and Ban Laem Pho, but other fishing villages along the Phangnga Bay as well. To the south-east of Khao Haang Naak lies Ko Pu and Ko Lanta and a series of smaller islands. To the east of Khao Haang Naak near the village of Ban Laem Pho begins the vast

mangrove swamp and the river mouth (*Pak nam*) of the Krabi river.

When venturing out to the sea, the fishermen always stay within the visual distance of the shore or the islands. Twenty-five to thirty kilometres from the shore is the usual limit. The depth of the water beyond this point gets over 35 metres deep and the technology available to the small-scale fishermen is not suitable for such deep waters.

Species of fish are classified according to habitat. Basically, the migratory species are found in deeper waters beyond the fifteen metre mark and five kilometres from the shore whereas the coral reef species are found within this five kilometre limit. Much of the fishing is done within this limit. Only in the high season when the migratory species arrive on the scene do the fishermen venture further out. Fishermen do occasionally go as far as Ko Rak Nok, an island some 12 kilometres from the tip of Ko Lanta and 45 kilometres from Ao Nang, and is renowned for its clear waters and sea shells. Beyond the visual range of the islands and the shore is another world few fishermen have ventured. It is tempting fate to venture too far to the unknown and few fishermen would venture to such deep waters. This is also so, because as the fish are abundant within the coastal waters there is little reason to go further out.

As noted earlier the locations of the best fishing spots are secrets that fishermen are reluctant to divulge to outsiders. Jutting rocks, stretches of identifiable reefs or submerged rocky areas are frequented by fishermen because these points tend to yield good catches. Local fishermen locate good fishing grounds by visual triangulation. Forman notes a similar technique used by Brazilian raft fishermen (Forman 1970:67-68). Two landmarks are used as reference points. These reference points may be mountain peaks, a grove of coconut

palms, the outline of a familiar rubber plantation, a white beach, a rocky cape, a little island and so on.

Two such landmarks are used simultaneously to fix a distinct fishing spot. For example, a fisherman knows he has arrived to his favourite location when the top of Ko Yawasam are in line with Khao Phya Naak and the tip of Ko Khan Dam angles with Laem Hin.

Determining course is done by lining up certain landmarks and calculating sailing time. Of course, currents and winds must be taken into account, but generally speaking this is the pattern. Distance is usually expressed in terms of the sailing time from shore to the fishing spot. For example, Hin Musang, which is an underwater rock where fishing is good, is located around fifteen kilometres south-west from Ao Nang and takes approximately one hour and forty-five minutes to reach it by a small boat from Ban Laem Pho. The fisherman knows he is in course when he can see Laem Haang Naak on the mainland in line with Ko Daeng and Ko Lanta Yai to his right. After the time has elapsed he should be near the destination. Once on a particular spot he only needs to look to the shore and see how the landmarks fit together. The fisherman then drops a line to test the bottom. From the length of the line he can read the depth of the water. The depth is conceived in metres (*met*). Older fishermen like to talk of *wa* or fathoms. From experience he will know what kind of an area it is. When the anchor is thrown overboard and when it has hit the bottom it can be brought to the surface again. If there is mud in the bottom some of the mud will stick to the anchor whereas in the case of a gravel bottom one has to rely on the sense of smell. A gravel bottom is said to have a bad odour (*klin saap*). Coral reefs are easy to tell from shadows in the water. Dark spots indicate coral whereas white spots indicate sand. From experience he can tell what type of fish can be found in a particular fishing ground. Before the trip is started, the

fisherman will determine what kind of fish he wants to go after. The equipment is chosen accordingly.

In the following there are two excerpts from my field diary describing two fishing trips. Through these fishing trips I want to exemplify the nature of fishing in the Phangnga Bay region. I regard them as typical fishing trips in the area, except of course for the fact that an anthropologist was aboard. The first excerpt is about a trip to check the crab nets (*uan pu*) and the other one is about a trip to the large sedentary trap or the *po*.

"3 November 1993. Today at ten ó´clock I went to see Keeb at the Khlong Haeng beach. We had agreed that today he would take me to see his crab nets (*uan pu*). The morning was sunny and already intensely hot even though it was not yet midday. I arrived at the beach where he kept his boat at around half past nine. Kasem was fixing his boat nearby Keeb´s boat. The upper planks of the boat were rotten and he had to change them. The tide was coming in and soon Keeb´s boat would float. It was still resting on the beach and we had to wait around fifteen minutes for the tide to rise. Keeb´s boat was a ten meters long long-tail boat. We poured some gasoline into the tank and cranked up the engine. Black smoke came from the motor as it coughed and slowly started. Keeb had brought his ten year old son Pong with him to help with the nets. I was equipped with my camera and a water bottle. We headed south-west towards Ko Phi Phi. The wind was gentle and the waves rocked the boat gently. After twenty minutes I saw two floats in the sea and Keeb said they were his. The nets were placed at the outer edge of a coral reef. Keeb stopped the engine and I helped catch one of the floats. The net was around 100 metres long and 1 metre high with the mesh around 10 cm wide. The net was placed near the bottom with little rocks used as sinkers. The water at this point was probably around ten meters deep. He started to pull the nets into the boat as Pong and I helped. We started to disentangle crabs from the net as we piled it into a nice pile. The crabs were mostly *puu maa* (Blue swimming crab) and *puu daw* (Three-spot swimming crab) with a few *puu le* (Serrated mud crab). Besides the crabs there were a few *kaben* (Imbricated stingray) and coral fish like *slithini* (Streaked spinefoot) and *kaphongpankhanglay* (Russell´s snapper). Keeb told me to watch carefully for the spike at the stingray´s tail as it contained poison. Pong removed the crabs skilfully and fast without ripping the net. Since I was new to this job, it took me three times as long to disentangle the crabs from the net. I was afraid I would rip the net. The crabs held tightly to the threads of the net with their pincers. Also their legs seemed to be all over the

place. The disentangling of the catch took around fifty minutes after which we placed the net back into the water into its former position. Keeb estimated that the crab catch weighed approximately eight kilograms, which was a pretty good catch. The market value of the crabs is around 25 baht per kilogram, so Keeb was happy. He checks the crab net every three days. At the beach Keeb´s wife Mari was waiting and she took the crabs for sale. The fish and the stingrays his wife kept for their own consumption."

"23 December 1993. This morning I rode to Ban Ko Kwang on my motorbike. As I was passing Hem´s house I saw him and his to son´s Ui and Sak in the garden. I stopped for a chat and Hem invited me to accompany them to the *po*. We left for the nearby beach were he kept his boat with his old pick-up truck. The beach road was in really bad shape after the monsoon rains and I thought we would get stuck at a couple of places. Hem´s boat is a small six metres long boat and I wondered how we would all fit into it with all the buckets and nets. The weather was a bit cloudy, but it seldom rains at this time of the year. Anyway, I like cloudy skies when we go fishing because the sun does not burn so intensely. After a forty minutes ride along the coast-line we arrived at the *po*. We passed over coral formations that cast dark shadows in the water. Long bamboo stakes with nets strung in between the stakes glittered in the sun. At this point the water was emerald green. We approached the *po* from the left wing of the *po*. At this point Hem and Sak descended into the water together with a net. Ui and I rowed the boat to the end of the structure where the trap (*loom*) is located. Ui tied the boat to the bamboo stake and climbed inside the inner room of the *po*. I stayed behind clutching my camera in one hand and a *sawing* in the other. Hem and Sak moved in the water towards the outer room of the *po*. Each held the five meter long net at one end. Their idea was to drive the fish towards the inner room and into the trap. This had to be done slowly so as not to scare the fish too much. A large sea turtle was also swimming in the inner room of the *po*. Ui told me they would let the animal go as Muslims do not eat turtle meat. Driving the fish into the trap took over half an hour. A few *mykhom* (Soft cuttlefish) and *tabtau* (Spotted halfbeaks) rammed against the walls of the *po* and had to be removed into the *sawing* I was clutching. After the fish had been driven into the trap its door was closed and I, Sak and Ui climbed onto the bamboo poles above the trap. On top, some four meters above the surface, was a long rope and a heavy wooden pole. The boys tied one end of the rope to the pole and Hem waiting in the water dived and tied the other end into the trap. Then we started to turn the pole around using it as a kind of winch to lift the trap on the surface. The trap was surprisingly heavy and large, measuring three meters in length, two meters in width and one and a half meters in height. In one side there was a door from which Hem entered into the trap. Sak descended into the boat and helped Hem to scoop the catch with a *sawing* into the boat. The catch consisted mainly of *kaphongpankhanglay* (Russell´s snappers),

dukthale (Striped sea catfish), *krabookpiiklyang* (Bluespot grey mullet), *krabooktontai* (Diamond-scaled grey mullet), *cheliab* (Yellow queenfish), *lang* (Indian mackerel), *mongsae* (Longfin cavalla), *paenyak* (Common ponyfish), *dokmakrabok* (Whipfin mojarra), *iputtaatoo* (Bigeye ilisha). In addition there were a few *saakhlyang* (Obtuse barracuda), *kaben* (Banded whip-tail stingray) and one large *plaakau* (Greasy grouper). The *plaakau* Hem wanted to keep alive as seafood restaurants like to keep them in aquariums and they pay a good price for such live fish. The catch was good and Hem estimated that the catch weighed around 70 kilograms. The fish were thrown on the floor of the boat which was already leaking and had to be emptied every then and now. The cuttlefish sprayed ink all over the place and the boat was quite a mess. We lowered the trap back into its place and started the journey back home. The trip took altogether around four hours. At the beach Hem´s eldest daughter was waiting for the catch. As is common throughout the coast the women take care of the marketing of the catch. As Sak told me: "*Nathii phuchai mot mya thyng fang*." (The men´s job is over once the boat hits the beach). Well, in fact we did help carry the catch into the waiting pick-up truck that the daughter drove. Hem took a portion of the catch for personal consumption and invited me for barbecued stingray dinner, which I accepted with delight."

5.1.3 FISHING RIGHTS

The ocean is a resource that is considered public property. No one in particular owns the fishing grounds and the fish. The state, of course, owns all the fishing grounds within its boundaries and its citizens have usufruct rights.

According to Thai law, small-scale fishermen are allowed to fish almost everywhere except within the boundaries of marine parks. A special 3000 meter zone of coastal waters is exclusively reserved for small-scale fishermen. The local fishermen can fish as they please as long as they obey fishery regulations and rules and pay annual boat taxes. Certain fishing methods, like *uan run* or using dynamite (*raboet plaa*) that are potentially destructive are altogether outlawed. The mesh sizes of nets are also regulated, but seldom enforced.

Anthropological studies of maritime societies point out that the fishing rights involve control over "fishing space" (cf.

Andersen 1972; Forman 1970; McCay 1987:399). Acheson argues that in many cases the question about access to fishing rights is not so much about conserving the local fish stock as to reserve the fish that are in the "fishing space" for one´s self (Acheson 1981:281). In Micronesia, several forms of tenure apply in relation to reef and lagoon fishing. Sudo describes Micronesian sea tenure, where the right to fish is privately owned by particular extended families, as "systems of social relationships between persons or groups of persons" (Sudo 1984:295). In some maritime communities the access to fishing grounds is controlled by a system of rotation. For example, Alexander writes that among beachseine fishermen in Sri Lanka there is a system of strict rotation in order to ensure that every person has equal opportunity to catch migratory species of fish from the fishing stations along the beach (Alexander 1977:240-241).

Within Thai Muslim village society there are unwritten rules of territoriality and the fishermen talk about *khet haa plaa*, which glosses over as fishing grounds. The equipment used in fishing operations dictates largely how loose or tight the unwritten rules of territoriality are. Sharing of fishery resources between neighbouring villages is a common practice. Often people from neighbouring villages have kin relations in the villages in whose waters they fish. Outsiders, meaning fishermen from other villages in Phangnga Bay, may usually fish in local waters provided they ask for permission first.

There are no specific delineations of the village fishing grounds per se, but usually the outer edge of the coral reef is considered as the edge of the village fishing grounds. The deeper water outside this edge is considered a free-for-all area among small-scale fishermen.

Basically speaking, there is less rules regarding the use simple equipment like the line hooks (*bet* or *bet raw*) and nets (*uan loi, uan pu, uan kung*), but the use of sedentary

equipment like squid traps (*sai myk*) and the large weirs (*po*) is more complicated. Setting nets and hand lining are methods that do not require staying in a specific place for long periods at a time. Therefore, there are few rules about the use of such equipment. Fishermen from the same village can usually set their nets where they please. Nonetheless, there are certain spots utilised by certain individuals and others do not want to fish near them. No one would really object but it is considered bad manners (*mai mi marayaat*) to go and set nets in an area that has been utilised by someone else for a long time. Regarding the setting of traps (*loom* and *sai myk*), I observed that certain individuals tended to set their traps in certain places according to kinship patterns. For example, a son and a father or two brothers would set traps in the vicinity of each other. Also, these spots had been utilised by the same lineages for a few generations. In a way, the lineages had declared these spots as their exclusive "fishing space". The ownership of traps are declared by tying a coloured flag on a pole on top of the float indicating exclusive rights to the catch.

Perhaps the most clear ownership rights were involved in the operation of the sedentary weir known as *po*. As is discussed in Appendix I, constructing a *po* requires considerable capital and labour input. The village chief and the village council are consulted on whether they have anything against the idea of building a *po* in a particular location. If it is agreed to, the builder must ask permission from the district fisheries office. Here he registers the *po* and pays a registration fee of a few hundred baht. This means that the state has given rights of usufruct to the site of the *po*. A *po* must be constructed within the boundaries of the village's fishing grounds. A *po* can be operated for four consecutive seasons after which a new round of permissions must be obtained. Due to the high costs of constructing a *po*, its ownership tends to stay with the same individuals year after year.

Since traps are left in the water for several weeks and the *po* for a whole season, other fishermen steal the catch from them if the owner does not watch over his traps. Stealing from traps and the *po* is considered a prevalent problem in the area. Fishermen from other villages passing by and sometimes even fellow villagers are tempted to check other peoples traps. Helping themselves without permission is considered an immoral act. The word *khmoi* meaning a thief is used to indicate such people. Although no one likes thieves it is accepted that a certain amount of stealing is inevitable. As Hem remarked about some one stealing from his *po*: "*Thaa khrai yaak cha dai plaa chaak po ku ku ko mai waa tae tong thaam ku korn aei phuak thi khmoi phuak nii mai ruckak phasa khon*" (If someone wanted to fish out of my *po* I wouldn't mind, as long as they ask for permission first, these people who steal don't know the language of people). Few sanctions are taken against the culprits if the problem does not get out of hand. If a person is caught stealing from other people's traps the issue will be brought to the attention of the culprit's village headman who then reprimands the thief and makes him pay a fine to the owner of the traps. Most such disputes are handled within the villages by the chiefs and sometimes the *kamnan* (subdistrict chief) gets involved. Social sanctions and the loss of face (*khai na*) is usually enough to curb stealing for a while. Thai Muslim fishermen do not like to get the state officials involved in their disputes since this would entail payment of bribes and other unnecessary nuisances.

Much more serious problems are created by commercial trawlers that trespass in the fishing grounds in which small-scale fishermen operate. Trawlers destroy the traps and nets of small-scale fisherman by sweeping them with their trawls. Also, the fact that they destroy fish stocks causes much resentment on the part of the local fishermen. Occasionally, the problems mount up to violence and fatalities are caused.[4]

[4] See Chapter 2 for details about the problem of trawlers encroaching in areas of small-scale fishermen and Chapter 6

5.1.4 PATTERNS OF OWNERSHIP AND PRODUCTION

5.1.4.1 INVESTMENT, OPERATING COSTS AND ACCESS TO FACTORS OF PRODUCTION

The primary factors of production include boats and fishing gear, labour, and money capital. In addition, knowledge and fishing skills should be added to the list of productive factors.

The boats used in Phangnga Bay region are relatively small long-tail boats (*rya haang yau*) with an old engine attached. The *rya haang yau* are long, narrow canoe-like craft fitted with outboard motors. The boats are classified according to how many *kong* they have. The *kong* is a piece of the frame to which the wooden planks of the boat are attached. The *kong* are always in odd numbers, because even numbers would bring bad luck. Eleven *kong* is considered to be the smallest boat, and usually the bigger fishing boats have either nineteen or twenty-one *kong*. The *kong* are set around 50 centimetres apart. Therefore, a boat with nineteen *kong* is around 9.5 metres in length. The average boat with nineteen *kong* costs around 20,000 baht. The engine costs another 21,000 baht. The engines are usually 10 h.p. - 15 h.p. Yamaha or Yanmar motors that are made in Thailand under a license. They are strong and simple to use and use diesel (*sola*) for operation. The engine has a long (4-5 m) steel rod attached to it with a propeller at the end. This steel rod can be lifted up easily and therefore the boat can be driven in shallow water if need be. Besides these, a pair of *chew* (oars) at 100 baht a pair and an anchor at 150 baht are needed. The total investment of 41,250 baht for a new fishing boat is a considerable investment and therefore second-hand boats are often bought instead.

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for discussion about the responses of small-scale fishermen to this problem.

Given the diversity in forms of fishing among Krabi fishermen, the choice as to which kind of activity to engage in is largely determined by what can be afforded. The cheapest kind of fishing is using line hooks (*bet*) and squid traps (*sai myk*). As noted in an earlier section, nets are more expensive than line hooks and squid traps, but not beyond the reach of the ordinary fishing household. The cost of using a sedentary weir (*po*) is beyond the reach of the poorer households.

Table 9 presents the daily costs per trip for the most common form of fishing, i.e. using nets during the peak of the fishing season.

TABLE 9. CAPITAL AND LABOUR COSTS PER TRIP FOR GILL NET FISHERMEN

	baht	%
Labour (& food)	280	70
Materials (gas, oil, ice)	80	20
Maintenance (caulking etc.)	30	7.5
Depreciation	10	2.5
Total	400	100

(The above data is based on interviews with three gill net fishermen and therefore represents typical rather than average costs. The cost of labour is based on two-man crew, calculated using the *nyng nai saam* share system, in which the crew member receives around one-third and the skipper one-third and the boat the remaining one-third. The figure for maintenance is arrived from the cost of annual repairs divided by 250 trips per year and the figure for depreciation is the coat of a new 21-*kong* boat with fishing gear depreciated over a 12-year period divided by 250 trips per year.)

Nowadays fishing nets, lines and hooks are purchased while bamboo and rattan for traps is gathered in the local forest. In terms of productive technology the boat is the most expensive investment. A fisherman could build the boat himself, but this is seldom the case because building it requires considerable specialist skill. Usually, a local

craftsman is hired to build the frame to which the fisherman can himself then add the planks and other parts.

When in times of need, most households can obtain credit from their kin and close friends. Muslim villagers do not like to be in debt to outsiders and therefore there are fewer debt relations to outside capitalists in Muslim villages than in inland Buddhist agricultural villages. Significantly, Islam prohibits the extraction of interest on loans (cf. Firth 1964:33-34). This, of course, does not mean that villagers do not have debt relations to outsiders, but such relations are not made public. Another reason besides religion is the fact that a majority of the villagers do not have many assets that banks and other credit institutions would accept as forms of guarantee. There are, of course, those who possess land and may obtain credit from banks if they wanted. Nonetheless, banks are a last resort and people prefer to obtain credit from kin and friends. This means that the sums involved are relatively small as few villagers are in a position to loan large sums of money.

As noted earlier the wife usually acts as the financial manager of the household. This means that when the time for purchase of a boat comes the husband and the wife will consider whether they can afford to buy a new boat, and if they can, what kind of boat. As boats require considerable investment, the capital needed may be partly loaned. If she needs a loan, the wife usually borrows from her kin. These include mostly her sisters who live in the village. No interest is asked from close kin. However, a kind of contract is agreed in which the persons loaning the money are entitled to portions of the catches from the lender. Two case studies will illustrate this:

INVESTING IN NEW FISHING EQUIPMENT

Ton decided he needed to make repairs to his boat and purchase a new engine. A number of planks needed to be replaced and it was calculated that this would cost 1,500 baht, plus 700 baht to hire a carpenter to put the new planks in place. The 2,200 baht needed for the boat repairs was not that much and Ton and his wife Lek had the money for this. However, a second-hand engine, that had been completely refitted with new parts, would cost 11,000 baht. Lek and Ton had 4,000 baht for the engine themselves, but needed another 7,000 baht. 4,000 baht they borrowed from Lek´s mother and the remaining 3,000 baht from the Lek´s aunt. No interest in the form of cash was charged. However, as in the case of Boonsong and Aet, Lek´s mother and her aunt were entitled to a portion of the catch until the debt had been repaid. There were no written contracts and no time periods set. Rather, the loans were settled through verbal agreements and it was agreed that Lek and Ton would repay when they managed to raise enough money. As is customary, they could either repay the loans in a lump sum or in portions. Lek repaid in a lump sum as she preferred it that way.

PURCHASE OF A NEW BOAT

Boonsong decided that it was time for him to acquire a new boat as the old one was small and some of the planks started to rot. He thought of replacing the rotting planks with new ones, but with advice from other fishermen decided that he should get a new boat altogether. Boonsong brought the issue to his wife Aet for discussion. Aet agreed that the old boat should be replaced as it was time to expand the family fishing operations. With a new and bigger boat Boonsong could take squid traps (*sai myk*) out to the sea and squid fetched a good price in the market. Boonsong knew a friend from the village of Ban Ko Klang, whose father-in-law was a carpenter. Together the couple went to see the carpenter to negotiate for the

price of a new boat. Although Boonsong did much of the talking, because it was he who knew what kind of boat he needed, when the time of the price cropped up it was Aet who did the negotiating. After some haggling it was agreed that 18,000 baht would be a fair price. Aet had 10,000 baht in savings and the rest of the sum she had to borrow from her elder sister and her father. The elder sister loaned 5,000 baht and the mother the remaining sum of 3,000 baht. No interest was asked for the sums, but it was agreed that the elder sister and the father would be entitled to portions of the catch until Aet had repaid them. In practice this meant the following. If Boonsong caught specially valued fish such as Pomfret, Aet would present the choice fish to her sister and mother. When I presented Aet with the question of whether what she was doing was a form of interest, she flatly denied this and answered that presenting choice fish were merely gifts that any one loaning money to finance fishing operations would be entitled to.

The deeper meaning in terms of household politics is that the wife has the major say from whom the loan may be obtained and she negotiates the terms of the loan. The manipulation of social relations are crucial in obtaining credit. Because of the fact that most men are outsiders to the community, their chances of raising credit within the community are very limited and they must rely on their wives to do it. The man uses the money raised by his wife to upgrade his equipment and must share portions of the catch, mostly choice fish, to the people his wife owes the money. In village society, people are constantly involved in debt relations to each other. Should Lek´s sister for example at some point in time need a loan she would be likely to ask for one from Lek, if Lek is in a position to help. The fact that Lek has borrowed from her kin puts her in a position in which she has moral obligation to help others of her kin.

The process of negotiation itself is rather informal between members of kin. As the loans are usually obtained from female kin, they are in the 'know' of the financial situation of each other and know when the other party is in a position to grant a loan. If for some reason credit can not be obtained when needed the matter is postponed until the financial situation of the potential person giving the loan is better or other sources are sought. Usually, it is known in advance when the time for the replacement of a boat or other fishing equipment comes and people want to plan ahead for this.

After female kin come friends from whom money may be borrowed. Only in very pressing circumstances when money is immediately needed to pay, for example, hospital expenses is money requested from the more wealthy villagers who then either loan the money without interest if the sum is small or give it in return for labour. One such case, when I was doing fieldwork, was a poor family whose son had fallen ill and needed 1,200 baht to cover medical bills. The father obtained the sum from Paradee, a wealthy rubber plantation owner. He had to work in her rubber plantation cutting grass and helping tap rubber for around a month to pay the sum.

A good boat lasts for over a decade with good care. During his productive life, a fisherman is likely to have four to five boats. The maintenance of the boat requires a biannual scraping and cleaning of the bottom of the boat. Cockles and other marine animals cling to the wooden planks and, if left intact, they will eventually cause the planks to rot. Also the seams between the planks must be caulked twice a year. Cotton thread and resin (*nammanyaang*) at 40 baht per litre are used in this operation.

Generally speaking anyone who can afford to buy a boat is likely to be able to invest in equipment also. However, as pointed out previously, no one will use all the productive technology available at once. Rather, a combination of these

will be used. For example, one may work with *bet* at a particular time of the year and *sai myk* at another. Or those who fish with *uan loi* may use loom to supplement the catch. Those who construct a *po* seldom use other technology since the catches from the *po* is so good. Of course, the socio-economic situation of the household dictates what kind of technology is used. The poorest fishermen can afford only a small eleven *kong* boat with a small engine and fish with lines and hooks (*bet*), while the better off may use squid traps (*sai myk*) or gill-nets (*uan*) and the few wealthy fishermen construct a sedentary weir (*po*).

Besides acquisition of productive technology by either manufacturing or purchasing, productive technology (mostly boats) may be acquired through inheritance or marriage. At times boats may be inherited, but again the problem is that they seldom last long enough to be passed from one generation to the next. This is true for other equipment also. Sons are mostly expected to strike out on their own. This means working as crew members on somebody else's boat until they have amassed some savings to purchase a second-hand boat. More important than material things, is really the fact that sons learn the necessary fishing skills from their father. This can be thought of as a the ´mental part´ of inheritance.

A marriage may help in gaining access to the factors of production. For example, in the case where there are no male inheritors, the son-in-law may inherit the boat if it is still in an operational condition. Also the mother-in-law may help finance her daughter´s household´s fishing operations through loaning money for boat purchases.

5.1.4.2 CREW, RECRUITMENT AND LABOUR

Most of the fishing operations done by small-scale fishermen in Phangnga Bay require only a small crew. In fact, many fishermen, especially those using simple technology such as lines and hooks, go out to the sea alone. Nonetheless, the usual crew size for a *rya haang yau* is two or three people. In most cases the crew is composed of kin, although this is not always true. The number of sons a fisherman has is an important component for crew recruitment. In the fishing household there are usually two to three males who work together in fishing operations. For example, the typical crew may consist of father and an adult son, father-in-law and son-in-law, brothers-in laws, or some other combination. Fishing is a kind of operation in which people must work closely together for many hours out in the sea in a small boat. Therefore, one likes to choose crew members whom one likes and gets along well with.

Usually each household possesses one boat. There are, however, some households that may share a boat, especially if the boat is a larger 23 *kong* boat. For example, Sak (introduced in Chapter 4 in relation to the household profiles) who fishes with *bet raw* at night time, shares a boat with his brother-in-law Lek, who uses squid traps in the day time.

The skipper (*tai*), who is usually also the owner of the boat, discusses with the crew members (*luk rya*), be they one or two persons, where they should go fishing each day and what technique should be used. The skipper of the boat enjoys potentially higher earnings. All fishermen like to become skippers of their own boats. Typically fishermen start their careers by working on other people's boats as crew members until they marry and/or are able to acquire their own boat. Even after marrying they may continue to work as crew for a while or if the couple is able to amass enough capital, buy a small boat and start independent operations. Again here the

role of the wife is crucial as she is in the key position to manipulate her kin relations to raise enough capital for the purchase of a new boat as illustrated in the above case study. This happens when they have saved enough money for the purchase of a boat. Typically younger men work as crew on other peoples boats until they marry and acquire their own boat.

Crew members receive shares of the catch. The shares are based on the income from the value of the catch after all expenses have been deducted. These expenses consist mainly of the cost of food, gasoline and bait. The system of sharing used throughout Phangnga Bay is called *nyng nai saam* (one in third). This means that crew members receive one third of the value of the catch and the skipper gets two thirds. This is considered just as the skipper is the senior man with the necessary knowledge and actually one third is thought to belong to the boat. Such a system of sharing in by no means unique to the Thai Muslim fishermen. Firth notes that in Kelantan, Malaysia the share system is known as *bagi tiga* (it divides by three). This means that the net owner takes one-third of the catch and the crew gets the rest (Firth 1946:236). Among Brazilian raft fishermen the owner of the raft receives 45 percent of the catch and the crew divide the rest among themselves (Forman 1970:51).

The *nyng nai saam* share system is more predominant with crew who have their own families already. For boats that are manned by close kinsmen like sons, depending on their age they are often paid in terms of access to household funds rather than outright money. What this means in practice is that the parents of the boys pay for their food and clothes and other necessities and should they need money for personal consumption they ask from their mother for it. For example, Hem has two teenage sons who both help him in fishing activities. Hem does not pay them outright cash for their labour. However, the boys receive food and other necessities

and when they need money to make purchases for personal consumption they have the right to ask for money from their mother for such purposes. In addition to this, the two boys have their own fish traps (*loom*) and whatever fish they catch from these traps they may sell them and keep the money and do with it as they please. However, if the sons would be married and still they would work with their father them for their labour according to the *nyng nai saam* share system.

As noted already, fishing in Phangnga Bay tends to be an occupation engaged in by more than one family member. Sons often accompany their fathers on fishing trips as early as nine to ten years of age. After they have finished primary school at the age of twelve they tend to help their fathers on a full-time basis. This is especially true of the poorer families that can not afford to provide their sons with more education. When they become adults they tend to work as crew on trawlers for a while before getting married and settling down and starting their own operations after helping their father for a while. On the other hand, the sons of wealthier families tend to continue their education until at least the end of secondary school before taking fishing as an occupation.

The average number of persons on a boat ranges from two to three. The skipper (*tai*) makes all the decisions although he does consult the others for their opinions too. The *tai* navigates the boat while the crew members prepare the gear and help extract the catch from whatever gear is used.

Fishing depends to a great extent on the weather, tides and movements of the fish (see Appendix V for a detailed discussion on the cycles and rhythms of nature and their relation to local fishing practices). The time spent in fishing each day varies from day to day and from season to season. On the average a fisherman will fish on about 20 days in a month during the best fishing months between November and

February. The rest of the time is spent in fixing the boat and gear or in some other activity. During the monsoon season between May and October it is not uncommon that in some months the time spent fishing per month is reduced to only 5-6 days due to stormy weather. During March and April the sea is calm and one can go fishing virtually every day. However, the problem is that apart from the coral reef fish, the high value migratory fish are difficult to find.

In addition, the gear used correlates with the time spent in production. A fisherman using an *uan loi* may go out to the sea twice a day to check the nets, remove the fish, pack them in ice and replace the nets. This takes around two to three hours to complete depending on the location of fishing grounds. Line fishing (*bet*) and checking of traps (*loom* and *sai myk*) takes approximately the same amount of time as *uan loi*, although they are considered to be lighter work. As noted earlier constructing a *po* requires considerable labour, but the time spent in checking the catch is perhaps the least in this type of fishing.

Women play an important part in the labour structure of the fishing economy. They cook the meals for the crew to take on the boat on each fishing trip, help mend the nets and perhaps most important of all, take care of marketing of the catch (this will be discussed in the next section in detail).

Interestingly enough, although fishing households do occasionally help each other, the cash economy causes most productive activities to be confined to individual households or in some cases to joint households. Most of the reciprocal sharing of work occurs when men construct new traps or when boats need repairing. Even here there are expectations that whatever labour is contributed to help fellow fishermen will be reciprocated sometime in the future.

5.1.5 DISTRIBUTION AND REDISTRIBUTION

After the boat lands on the beach and the catch has been carried ashore in baskets, the distribution of the catch begins. People who are involved in this process include the wives and sons of the fishermen themselves, fish dealers and other interested people. All of them share in some way the redistribution of the catch and its marketing in local markets.

The wives and children of the crew take fish aside for own consumption. These include smaller fish that have little market value and also some choice pieces. After this villagers who are interested in the catch may choose to buy a few fish at 'friends only' prices (*rakhaa ruchakkan*). Occasionally, if the catch is particularly good, members of the kin are entitled to some choice fish as gifts. After this, the rest of the catch is separated into piles according to species and weighed with a scale provided by the fish dealer. The dealer who is most often a woman (see the case study below for a profile of a dealer) will determine the daily market value of the catch and pay accordingly.

Often the dealer is a woman who is the regular buyer for a particular boat. She does not necessarily pay in cash there and then, but keeps a record of the catch and pays a lump sum at the end of the month. The payment is always made to the skipper who hands the money to his wife. If the crew consists of teenage sons, they are not paid in cash, but as stated earlier they are simply granted access to the household funds when they need to buy items for personal consumption. If on the other hand, the crew consists of adult married sons or other people they are then paid according to the *nyng nai saam* sharing system. That is, they receive one third of the proceeds after the earlier stated production costs have been deducted first.

The share system is a system in which the wages of the crew are determined by the value of the catch. No small-scale fisherman could afford to pay fixed wages as the value of the catch fluctuates from catch to catch. The share system also means that the crew share the risks of production. If on a particular trip little or nothing is caught, the crew do not receive any payment either. Nonetheless, this is viewed as a fair practice (*yutitham*) by all parties concerned.

The fish dealers are known as *mae khaa*. Interestingly enough, the concept reveals the gender of the dealer. *Mae* means mother and *khaa* trade. The fact that most dealers are women is not restricted to Thai Muslim society only. Similar findings emerge from Firth´s (1946) Malay material, Forman´s (1970) Brazilian material, Fraser´s (1966) Malay Muslim material, Christensen´s (1977) material on the Fanti fishermen of Ghana and Stirrat´s (1989) Sri Lankan material.

In the Thai case, as has been noted before, women are financial managers. Almost none of the fishermen I knew in the area sold the fish themselves in the local market. They explained that they did not have the time, the knowledge nor the skill to do it. In fact, selling the catch is not considered as a fisherman´s job at all. Also, women are considered to have better knowledge of the monetary transactions. There is a very basic cultural understanding that women are good (*keng*) in financial transactions. Women have always occupied a central position in trade. In Thai Buddhist society one explanation is that men strive for the non-material goals, such as spiritual enlightenment and association with money is somehow polluting. This is true also for Thai Muslim society. As noted earlier, politics and religion are thought to be the realm of men, whereas commerce is thought fit for women. There has evolved a kind of idea that it is natural (*pen thammachart*) for women to be involved in financial transactions. People with Chinese blood do not

fit this pattern at all, as both males and females are traders. But then the idea of money as polluting does not hold in their cosmology.

Most dealers have regular customers among the fishermen. They may include kin members or fellow villagers. Almost always the dealers know the fishermen personally and it is a face to face relationship. The dealer-fisherman relationship involves a set of obligations. The dealer must buy whatever the supplier cares to sell. The dealer must also be seen to give fair prices for the catch. The fishermen on the other hand do understand that the value of fish fluctuates from time to time due to market conditions and are prepared to sell accordingly.

Dealers expect that fishermen sell only to them and nobody else. They also expect the fishermen to attempt to fish regularly so that there will be a regular supply of fish to be sold. Their expectations are realised to the extent that should either one of the parties involved fail to deliver the promises, the relationship will come to an abrupt end.

The dealers take the catch to the daily market in Krabi town. In addition, some dealers sell the catch in inland markets that are held once a week (*talat nat*). The further inland one goes the greater is the margin of profit as there is less competition of fresh fish. The fish is transported to the markets on pick up trucks. The *mae kha* set up stalls on which the produces including fresh fish, dried fish, crabs, shells, clams, oysters and other marine produce is exhibited for sale. A simple scale that indicates the weight of produce at the intervals of one hundred grams is used to weigh the fish. Fresh fish fetches a higher price than dried produce and therefore it is preserved in ice until sale commences. The best times to sell the catch is early in the morning between five and seven o'clock. This is the time when people go to the market to buy food and other things. This means that the fish

which is sold in the market is usually caught the day before and preserved in ice overnight.

The prices of the fish at the Krabi market are set by the simple law of supply and demand. The average prices for fresh first class fish is around 40-50 baht per kilogram. The corresponding retail prices are around 50-60 per kilogram leaving the dealer with a 10 baht per kilogram profit. Generally speaking, during the period of abundant fishing, especially in the period between November and February the prices are lower, whereas during the monsoon season prices are higher. In the winter season production is much increased by coastal fishing and the supply is abundant resulting in the decrease of the fish prices. Interestingly enough, the period of scarcity during the monsoon season and immediately after it offers greater security to the dealers than during the period of abundance when the prices are low and competition fierce. Some dealers sell the catch themselves in the market while others prefer to resell the catch to fish traders in the market place. The profit margins of the former are bigger than of those who resell the catch. However, the former also face more risks since if the fish can not all be sold they must face losses from spoilage. Fish dealers who do not have the necessary skills or do not make enough profit, quit the job and take up other occupations.

Although the catches of the small-scale fishermen tend to be orientated towards the local market rather than for sale to Bangkok and other large cities, there are certain marine products caught by small-scale fishermen that are much in demand by the outside market. These products include first-class fish like Silver pomfret, Black pomfret, Bluespotted seabass, Starry emperor, Greasy grouper, Longfin cavalla and other marine animals like jellyfish, beche-de-mer, and lobsters. Some of the dealers act as middlemen for Chinese wholesalers who buy the fish from a number of dealers and transport the fish to be sold in Bangkok and other big cities

as far as Chiang Mai in the North. In addition, some of the above mentioned first-class fish and especially the prized lobsters end up in European, Japanese and Singaporean fish markets.

DEE, A PROFILE OF A FISH DEALER FROM BAN LAEM PHO

Dee is a fish dealer from Ban Laem Pho. She learned the trade from her mother who used also to be a fish dealer. As a child Dee would help her mother around the house and accompany her to the market in Krabi town where her mother sold fresh fish in the mornings. Dee picked up the art of trading by observation and from what her mother taught her. She married a man from the neighbouring village of Ban Ao Nammau, who fishes with Dee´s younger brother. Dee sells the fish that her husband and her brother catch and in addition she buys fish from a number of other fishermen from both Ban Laem Pho and Ban Ao Nammau. Each morning she takes the fish caught the previous day with a pick-up truck to the market in Krabi town. She jointly purchased the pick-up truck with her eldest sister, who owns a small rubber plantation and who uses the truck to transport rubber sheets to Chinese middlemen in the town. Dee does not drive herself and her brother-in-law does the driving for her. The fish is put in ice and therefore keeps fresh for a couple of days. Dee has regular customers in the market place, who have known her for years. If her husband and her brother-in-law catch especially valuable fish such as Greasy Groupers or lobsters she sells them directly to a Chinese middleman in Krabi town, who sells them to seafood restaurants in Bangkok or even overseas markets.

5.2 PETTY TRADERS, TOUR BOAT OPERATORS AND TOURIST ESTABLISHMENT WORKERS

5.2.1 PETTY TRADERS

In the previous section fish dealers were discussed. Another category of traders found in the villages are snack stall holders and the souvenir sellers of the "Fossil Shell Beach" of Ban Laem Pho introduced in Chapter 3.

The souvenir sellers of the "Fossil Shell Beach" are a creation of the tourism industry in Krabi. In the late 1980s, when tourists started to find their way to the "Fossil Shell Beach", a number of villagers realised that besides the rare geological phenomenon (see Chapter 3 for a description of the phenomenon) tourists were interested in the beautiful sea shells found in the area. By setting up simple stalls selling sea shells, wind chimes, plaster turtles covered with sea shells, stuffed crabs and lobsters, sea shell key rings and other such paraphernalia they could earn a good income. Currently there are fifteen such stalls catering to the aesthetic needs of the tourists. In addition eleven women have set up food stalls that sell Thai snacks and soft drinks to the visitors.

The souvenir stalls are simple constructions with a corrugated iron roof and two side walls made of concrete and bamboo. They were constructed by the National Marine Park Service (*Uthayaanhaengchaat*) in 1988.[5] The stall holders rent the

[5] As noted in chapter three, the "Fossil Shell Beach" is a rare geological phenomenon and was declared the property of the state in 1985. Previously the site was common property of the village. The villagers who had their properties near the site were allowed to live on the land, but it is prohibited to construct any dwellings in the immediate vicinity of the beach itself. This has not, however, affected fishing operations as the village pier has been located 500 meters from the actual "Fossil Shell Beach" for

shops at a monthly rate of 1,000 baht amounting to 6,000 baht a season. The sea shells displayed in the shops are mostly gathered by the shop owners and their kin themselves. A few more exotic shells are purchased from the neighbouring provinces of Phuket and Phangnga. In addition the women manufacture small "Fossil Shell Beach turtles" (*tao susan hoi*) which Ban Laem Pho is renown for. They make the turtles out of plaster and glue sea shells and sand on the them making them a favourite item among tourists. The estimated value of the inventory of a souvenir stall ranges from 8,000 to 10,000 baht. Apart from the monthly rent of 1,000 baht, the plaster and glue for making the turtles (approximately 4,000 baht for 900 turtles for the season) and the occasional purchase of sea shells (estimated at 3,000 baht per season), there are no other costs involved. The women sell the products themselves and the female kin of a stall holder helps sell the products. In many cases sisters or a woman and her daughter-in-law sell souvenirs in adjacent shops. It is difficult to estimate the average daily profit of the souvenir stalls as they tended to fluctuate from day to day. The estimated income of a stall holder for the entire season is in the region of 30,000 baht, which after expenses gives a profit of 17,000 baht. This compares favourably with the average annual income of around 20,000 baht of a fishing family using squid traps.

The snack stalls are very simple constructions with only a wooden table and an umbrella and a few seats for the customers. The inventory of the food stall is around 1,500 baht with the soft drinks being the most expensive item.

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at least the past 50 years. There was little resistance from the villagers of Ban Laem Pho against the state declaring the "Fossil Shell Beach" as public property as the site is situated at the edge of the village and the land was never used for cultivation. In addition, the village was promised that the road leading from Krabi town to the village would be upgraded into an all weather road and access to electricity would be provided by the state. These promises were fulfilled in 1992.

Noodles (*kuitio*) and papaya salad (*somtam*) were the favourite snacks that the women sold. A few ingredients were purchased from the market in Krabi town and the rest could be found in the household garden. There were no additional operating costs apart from the labour that the women themselves contributed. The net profit for snack stalls for an average season is in the region of 10,000 baht.

The "Fossil Shell Beach" is located within the boundaries of the village of Ban Laem Pho. However, it is situated near the entrance of the village and very few tourists venture to the village itself. There are a few houses located near the site itself, but otherwise there are only the shop stalls and a parking lot on the site itself. Therefore, tourism does not disrupt the daily life of the villagers much apart from the life of those who are directly involved with the above mentioned business activities.

All visitors, both domestic and international, are day trippers. A regular pick-up taxi (*songteow*) service runs at half hour intervals from Krabi town to the site and back, so many tourists visit the site individually. In addition a number of tourists visit the site by tourist buses as a part of a tour of the local attractions. It is difficult to estimate the numbers of tourists that daily visit the "Fossil Shell Beach". Tourism is a highly seasonal phenomena concentrating mainly between the winter months of November through March. During this time anything between 50-60 tourists may visit the site per day. On weekends there is a peak in the number of visitors as Thai families like to pay a visit to the site. In addition, in April when the Thai schools are closed many domestic visitors pay a visit to the area. When the monsoon season starts the stalls are shut as virtually no visitors come to Krabi.

THEARY, A PROFILE OF A SOUVENIR STALL HOLDER

Theary is a 30 year old woman from Ban Laem Pho whose husband is a small-scale fisherman. The couple have three children, two of whom go to the village primary school, the youngest accompanying Theary to her stall. Theary's husband was injured in a boating accident a few years ago and as a result lost one leg. He helps his brother-in-law in fishing operations, but the major income for the family comes from Theary's souvenir stall. In 1989 she decided to rent a souvenir stall from the National Marine Park Service. She had been a fish dealer before and had acquired some savings and decided to shift from fish trading to the souvenir business as she had witnessed her friend having established a lucrative business two years earlier. She needed to borrow a sum of 5,000 baht to supplement her savings of 8,000 baht for the initial investment of 13,000 baht to set up operations. The 5,000 baht she borrowed from her elder sister who owns a rubber plantation. She needed 6,000 baht for 6 months rent of the stall and 7,000 baht for purchasing plaster, glue, sea shells and other paraphernalia. After two successful seasons she made a profit of 18,000 baht and was able to repay her sister. Theary's three children help her making plaster turtles and gluing shells on them. They also help her gleaning the beach at low tide for shells to be sold at the stall. She does not speak any English, but this does not hamper trade with the foreign tourists. Her typical day during the tourist season begins at 5 a.m. when she wakes up and makes breakfast for the family. After other morning chores she goes to her stall at 7 a.m. to set up her stall for the day. She keeps her stall open until around 5 p.m. when the last tourists have left the site, after which she tends to the needs of her family again. In between selling souvenir items to the customers who happen to pass by her stall and decide to make a purchase Theary

manufactures the plaster turtles and glues sea shells on them. Most of the restocking of the other souvenir items is done during the monsoon season when the stalls are closed.

5.2.3 TOUR BOAT OPERATORS

In addition to the souvenir and snack stall holders in Ban Laem Pho a number of fishermen have turned their boats into sightseeing boats. This, like tourism in general, is a seasonal phenomenon. Younger fishermen who have the initiative and language skills add a sun screen, which costs 2,000 baht, to their fishing boats in order to take tourists on sightseeing trips to nearby islands. There were seven such operators from Ban Laem Pho in addition to others from other coastal villages who in November install the sun screens on their boats and take their boats in the morning to Ao Nang and Railae beaches to wait for potential customers. The boatmen take the tourists mostly to Ko Poda (Poda island), which is a half an hour away. Here there is a beautiful white sandy beach and a magnificent coral reef for snorkelling. The cost of the trip ranges from 300-600 baht per group depending on the bargaining skills of the tourists. Other destinations include the mangrove swamp near the entrance of Krabi River and a few other small islands in Krabi Bay. In March the tourist season is mostly over and some boat operators turn to fishing although the best fishing season is already over by then. Taking tourists on a day trip is ´easy money´ compared to fishing. Of course, earnings fluctuate on a daily basis. If it is a cloudy day, tourists prefer to stay on the beach instead of going out on a boat trip. On average, the boatmen get customers on around 15-20 days per month during the tourist season. They make an average of around 6,000-8,000 baht per month, which is a really good income by local standards. The only cost involved is around 40 baht worth of fuel per trip. Nevertheless, competition among the boat operators is fierce and only the younger fishermen care to be involved in the business. Besides a good boat, one needs at least a

rudimentary knowledge of English in order to communicate with the tourists. One needs to know how to bargain in English and discuss possible destinations. Although, the language skills of the fishermen are at best poor, many consider the necessary language skills as too difficult to master. Many of the older fishermen complain that the younger men are becoming lazy as they get accustomed to the 'easy' money they make from the tourists or as Lat remarked: "*Ai phuak nii thii man kap rya chau pen phuak dek man dai gorn gnai gnai man mai yaak tham atchip pramong iik phro karn haa plaa man nak*". (These people that operate tourist boats are youngsters who get money easily, they do not want to work as fishermen any more because fishing is hard work).

SOMBAT, A PROFILE OF A TOUR BOAT OPERATOR

Sombat is 25 year old man from Ban Nong Thale. When he married Wachalee, his wife, Sombat moved to live with Wachalee and her parents. The couple have a 2 year old son. As a boy Sombat used to help his father in fishing operations in Ban Nong Thale after finishing school. Unlike most village youth his parents were relatively wealthy and Sombat managed to complete high school in Krabi town. Here he worked as a waiter in a local coffee shop in the evenings and learned to speak rudimentary English by communicating with the occasional backpackers that visited the place. Sombat had visited the tourist town of Phuket and learned about the fishermen who had abandoned fishing activities and converted their fishing boats into tour boats. With capital from his wealthy parents he purchased a second-hand boat, equipped it with a parasol and began to take tourists from the Krabi town pier to the nearby islands. During the peak months of the tourist season, Sombat can easily make 8,000 baht a month, which gives him an average of 40,000 baht earnings for the tourist season. This is twice the amount a fisherman can make in a year. Each day during the tourist season Sombat takes his boat to Krabi town pier at 6 a.m. to wait for potential customers. At the pier there are 16

other boat owners waiting for customers. They have established a system of rotation, in which the boat owners take turns in catering for tourists. No one can hire his boat out before all members of the group have received customers. Most of the boats are of equal size and have similar engines and can therefore accommodate an equal number of passengers as all the others. At the moment the supply of boats at Krabi pier can cater to the demand and the boat owners are reluctant to allow any new operators to establish themselves at the site. All boat owners are from the coastal villages in the vicinity of Krabi town and know each other well. In a typical day Sombat will have one group of tourists hiring his services. As the trips are day trips it is seldom possible for him to make more than one trip. During the monsoon season Sombat fixes his boat and house and helps mend his father-in-law's nets. Due to the fact that Sombat makes such a good income his wife does not need to work, but stays home looking after her son and helping her mother in household chores.

5.2.2 TOURIST ESTABLISHMENT WORKERS

The tourist industry in the Railae and Ao Nang beaches provides a variety of labour opportunities for villagers from coastal villages in the vicinity of these tourist beaches. Ao Nang is a strip of white sandy beach located near the National Marine Park of Hatnopharatthara around ten kilometres west from the village of Ban Laem Pho. Railae beach is a smaller beach cut off from the mainland by a spine of high limestone cliffs located a couple of kilometres south-east from Ao Nang. On both beaches there are restaurants, coffee shops and bungalows that cater to both domestic and international tourists.[6] Most of the domestic tourists are Bangkokians who

[6] While it is true that most of the domestic tourists who visit Krabi come from Bangkok, the local people refer to any one that looks wealthy and speaks Central Thai as *khon krungtheep* (Bangkokian), regardless of whether they come from Bangkok, Chiang Mai or some other large city. The local

visit Krabi on their holidays. The majority of foreign tourists are backpackers as the sites are relatively new and mass tourism is still in incipient stages.

In these places a number of villagers from Ban Laem Pho and other coastal villages are employed as cooks, waiters, waitresses and maids.[7] Most of these jobs are low paying jobs that are suited for unskilled labourers, although waiters and waitresses must possess rudimentary English skills. The average monthly pay for these jobs ranges between 1,200-2,500 baht. Most of the workers are younger villagers with the age ranging from 16 to 35. Most of them are employed on a seasonal basis from October to April. During the monsoon season the tourist industry virtually shuts down. The fact that the tourist industry is booming has provided employment opportunities for many villagers has helped to stem potential migration to Phuket, Hat Yai and other big cities.

CHUPANEE, A PROFILE OF A WAITRESS FROM A RAILAE BEACH RESTAURANT

Chupanee is a 22-year old woman from Ban Laem Pho. Unlike many women of her age she is still unmarried. Like Sombat, the tour

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villagers are very quick to notice the speech, mannerisms and the like that give away a city dweller.

[7] The number of villagers from Ban Laem Pho who work at the Ao Nang and Railae beaches fluctuates as individuals move from one job to another trying their luck at different jobs. Between October and December 1993 when I was conducting the household census in Ban Laem Pho the number of villagers working in the tourist establishments was 36 individuals. Out of this figure 24 were females who worked as waitresses, cleaning ladies, and as kitchen staff. The 12 males worked as waiters, janitors and night guards. An interesting phenomenon is that only a very few individuals would stay in one job for more than a couple of seasons. Since tourism is a seasonal phenomenon and also still in its initial stages in Ao Nang and Railae beaches, the villagers are mostly employed from October to March after which almost all establishments catering to tourists close down.

boat operator we encountered above, Chupanee comes from a wealthy family. She also has completed her high school degree, something which is still relatively unusual for a Muslim girl to do. After completing her high school degree her aunt who works as a cook in a bungalow catering to backpackers helped Chupanee to find a job as a waitress in a Railae beach restaurant. She has worked at the restaurant for 3 seasons and receives a monthly salary of 2,200 baht. She comes to work at 5 p.m. and continues to work until 11 p.m. when the restaurant closes. She has to work seven days a work even though Friday is a day of rest in Muslim culture. The owner of the restaurant is a Thai Buddhist and is not interested in such matters. Chupanee's father who is a devout Muslim is not happy about her working on Fridays, but does not prohibit her from doing so. He complains that modern youth no longer follow the ways of their parents, but acknowledges the fact that times are changing.

KOP, A PROFILE OF A JANITOR FROM A AO PHRANANG BEACH GUEST HOUSE

Kop is a 33 year old man from Ban Ko Kwang who works as a janitor/gardener at a Railae beach guest house where he has worked for the past five years. Kop has worked as a rubber tapper ever since his youth before his current job. Unlike most men from Ban Ko Kwang Kop has never been a fisherman. The reason for this is that ever since he was a child he has suffered from occasional spells of dizziness and therefore can not go out to the sea on a boat. Five years ago when Kop's current employer opened the guest house for business he went to Ban Ko Kwang to ask the headman for someone to work as a janitor/gardener. The headman knew that Kop was a handyman and recommended him for the job. Kop receives a salary of 2,500 per month which compares favourably with the annual income of a small-scale fisherman. In addition, unlike most tourist establishment workers, he is employed throughout the year as the guest house requires constant upkeep. Furthermore, unlike

the majority of the tourist establishment workers, Kop gets Fridays off.

THE CASE OF LAI

Lai is a young unmarried man from Ban Ko Kwang who needed a job in order to amass some capital before settling down and marrying. Lai's father was a friend of Hajji Yi (see household profile 5 in Chapter 4) who sought Hajji Yi's advice in getting his son a job. As noted earlier Hajji Yi is a well respected villager who has connections with many wealthy people in Krabi. Hajji Yi knew of a friend in Ao Nang who operated a small coffee shop for tourists and who could use someone like Lai in the business. Hajji Yi contacted his friend and they agreed that Hajji Yi could *faak* Lai into his care. The coffee shop owner trusted Hajji Yi that Lai would perform his job well. Lai's father in turn was placed in a moral debt to Hajji Yi and saw that his son behaved according to expectations.

5.3 AGRICULTURAL AND INDUSTRIAL WORKERS

5.3.1 RUBBER TAPPERS

As noted in Chapter 3, section 3.1.2, in Phangnga Bay communities such as Ban Laem Pho and Ban Ko Kwang the single most important source of income for wage labourers in the agricultural sector is working as rubber tappers. In Ban Laem Pho there were 26 households and in Ban Ko Kwang there were 6 households that were involved in rubber tapping. Most worked as labourers in rubber plantations a few kilometres inland from the coast. The majority of these rubber plantations were owned by outsiders although in Ban Laem Pho there were 15 households and in Ban Ko Kwang there were 5 households that owned their own rubber plantations. These, however, were seldom over the size of 16 *rai* (2.56 hectares), which yield an average annual income of 24,000 baht.[8] Since the question of land ownership will be discussed in section 5.4, this section concentrates on the wage labourers who work on the rubber plantations of the region.

Tapping rubber is arduous work. Most of the tapping must be done in the early hours of the day when the weather is still cool and the latex runs easily from the fresh cuts made on the tree trunk. In terms of income, rubber tapping provides roughly comparable incomes as fishing with simple equipment such as small traps and gill nets. The following profile of Samai and Laa, rubber tappers from Ban Laem Pho exemplifies work in this sector:

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[8] In Chapter 4, section 4.2 we encountered Prasaan and Wanna, a couple who own a small rubber plantation from which the family derives its income. They are examples of the typical rubber plantation owning household.

SAMAI AND LAA, PROFILES OF RUBBER TAPPERS FROM BAN LAEM PHO

Samai is a 35-year-old man from the village of Ban Laem Pho. Following marriage, Samai, originally from Ban Khlong Haeng, a neighbouring village, moved to live with his wife's, Laa's, parents in Ban Laem Pho. The couple have three small children. Laa's father is a retired fisherman, who earns occasional income by helping repair other people's nets at the beach. Laa's mother helps to look after the children when the couple go to tap rubber in plantations nine kilometres inland from the village. They start work at 2 a.m. and tap rubber (*khriit yaang*) until around 7 a.m. in the morning. Basically, the work consists of making incisions in the bark of the rubber trees in order to make latex flow out to a container placed at the bottom of the tree. Since it is dark they wear torches attached to their heads to provide light. Rubber plantations are renown for snakes and therefore workers need to protect themselves by wearing rubber boots. Samai told me that in the average month he kills three snakes. At around 7 a.m. they proceed to collect the latex that has flown into the containers into jars that are then transported to a processing site. Here acid is mixed with the latex to solidify the raw latex. The latex is then pounded into blocks of rubber that are driven two times through a press resulting in 1m x 1m sheets of rubber. These are hung on bamboo poles to dry in the sun for the day. The work processes described above is completed around 10 a.m. Samai and Laa each receive wages of 80 baht per day of work. As rubber can be tapped an average of fifteen days a month, their monthly earnings amount to approximately 1,200 baht, a figure that is comparable to the income of a fisherman who uses simple equipment such as lines and small traps. Samai has been a rubber tapper most of his life ever since he finished four years of primary school. He did work as crew member on a fishing boat for one season as a young man, but disliked the work and returned to being a

rubber tapper. He does, however, have eight small traps in the Ban Laem Pho lagoon for catching coral reef fish, but this is only for family consumption.

5.3.2 GYPSUM PIER WORKERS

Piles of white gypsum that resemble a small hill at the northern end of Ban Ko Kwang make the gypsum pier visible from far away. Three piers constructed of concrete and iron jut into the lagoon where cargo ships call to load gypsum ore and transport it to distant lands. The sound of conveyor belts rattling and the noise from the engines of trucks fill the air. The trucks transporting gypsum ore to the pier through the village raise clouds of dust that colour the houses of the villagers brown. The gypsum pier is a graphic contrast to the tranquil fishing pier with the heaps of fishing nets drying in the sun and small fishing boats rocking gently in the calm lagoon at the southern end of the village. The two sites are also representations of two very different modes of making a living to the villagers. As discussed earlier, fishing in Phangnga Bay villages is mainly about small-scale operators extracting resources from the sea using simple technology and local knowledge and marketing the produce through small-scale dealers to the wider market, while the gypsum pier is about wage labourers toiling away in the sun according to schedules resembling a factory production unit, something quite new in the life worlds of the villagers.

YAI, PROFILE OF A CONVEYOR BELT OPERATOR

Yai is a 30-year old man who has worked as a conveyor belt operator with the Chupana gypsum company for the past four years. He was born in the neighbouring village of Ban Nong Thale, but moved to live with his wife's family in Ban Ko Kwang after marriage. Before working at the gypsum pier Yai was a crew member of his brother-in-law's boat. Although Yai has only four years of formal schooling as a young boy, he

learnt how to repair boat engines from his father who was a village mechanic. Although Yai worked as a crew member with his brother-in-law's fishing boat he spent considerable amount of time repairing boat engines on the shore. Eventually, his brother-in-law wanted to find someone else to work on the boat and Yai quit fishing altogether. At the time the Chupana company was setting up operations at the gypsum pier and was looking for someone who could be trained to operate the conveyor belt. Yai heard about the job and was offered a job for a three month trial period. The company was impressed by his hard work and sent him for additional training in machine repairs in Trang province. Yai receives a 3,000 baht monthly salary, which is a good salary by local standards. He works 10 hour shifts 6 days a week at the pier operating the conveyor belt that is used to convey gypsum ore from the pier to waiting cargo ships. Cargo ships call at the pier two times a week during which time the conveyor belt must operate without interruptions. Yai must ensure that the conveyor belt is operational when ever a cargo ship is scheduled to arrive and consequently most of his time is taken by maintenance activities. He feels that working at the gypsum pier is totally different from his previous work as a fisherman. At the pier he is tied to a tight work schedule and complains that the pressures resulting from responsibilities as a conveyor belt operator has made him think about the freedom being a fisherman entails. However, he is pleased with his job security and constant income and will continue to work at the pier as long as there is work to be done and he has the strength.

LEK, PROFILE OF AN UNSKILLED LABOURER

Lek is a 25 year old unskilled labourer who has been working with the Chupana company for the past three years. He is originally from Ban Khlong Muang, but like Yai moved to live with his wife's family in Ban Ko Kwang upon marriage. Like Yai he also was a fisherman before taking a job as an unskilled labourer at the gypsum pier. Lek has 4 years of formal

schooling. At the age of 9 Lek began to work together with his father fishing for squid. This he did until the age of nineteen when he married Uraiwan from Ban Ko Kwang. Uraiwan's father has worked as a part-time guard at the gypsum pier for 6 years. When the company was looking for unskilled labourers he recommended that Lek apply. His main tasks are to shovel gypsum ore onto the conveyor belt, help Yai in maintaining the conveyor belt and do odd jobs around the pier. Unlike the skilled workers, Lek does not receive a monthly wage, but is paid by the hour. His average wages per month amount to approximately 2,600 baht, which compares favourably with the income of a fisherman. Lek's work is physically more demanding than that of a fisherman and like Yai he is tied to a schedule. Nonetheless, Lek prefers his current job over fishing as he thinks there is better job security in being an unskilled labourer at the gypsum pier than being a fisherman.

As discussed in Chapter 3, section 3.1.2 regarding economic organisation in the community of Ban Ko Kwang, there were 17 households that identified wage labour as the main source of income. Out of these 17 there were 11 that were involved in wage labour at the gypsum pier. With the exception of one elderly man working as a foreman, all the other labourers were under 35 years of age. One implication of this is that the older fishermen were not interested nor had the capabilities to make a career change. Moreover, the work at the gypsum pier requires either good physical health or skills to operate machines, both qualities that younger men have more than older men. Although labouring at the gypsum pier is considered more arduous than fishing, all the labourers I interviewed were of the opinion that they would not want to go back to fishing as there was more job security being a wage labourer at the gypsum pier. In addition, the wages received from wage labour compared favourably with income received from fishing. A number of the wage labourers were of the opinion that should they want to they could return to fishing without much problems (cf. McCay 1981:7 for an argument that it is

relatively easy for a disgruntled labourer to return to fishing if the necessary skills have not been lost). If the gypsum pier operations will continue to expand and if the Southern Seaboard Development Project (discussed in Chapter 2, section 2.4) will be realised as planned there will be increased opportunities for the younger generation.

5.3.3 OTHER CASUAL LABOURERS

In the agricultural and industrial sectors, besides rubber tappers and gypsum pier workers, there are casual labourers who make a living from cutting mangrove wood for the coal kilns that operate in the vicinity of Krabi town and digging shrimp ponds in the mangroves. Compared with all other income-generating activities such labourers are at the bottom of the rung. There is no steady job security since work is available only when kilns need wood for coal production or when someone is going to set up a shrimp farm. The daily wage from such labour is 90 baht and with the average employment of 15 days a month it is hard to support a family. Consequently, men who work as casual labourers cutting mangrove wood and/or digging shrimp ponds try to supplement their income by other odd jobs that may be available in Krabi town and/or gleaning the reef for marine animals to supplement the family diet.

SUNG, PROFILE OF A CASUAL LABOURER

Sung is 32-year-old man from Ban Laem Pho. He was born in Ban Khlong Haeng, but moved to live with his wife and her parents in Ban Laem Pho after marriage at the age of 22. Both Sung's family in Ban Khlong Haeng and his wife's family in Ban Laem Pho are poor fishermen who fish mainly for family consumption. Sung used to be a fisherman too, but decided to try his luck in land-based jobs. The coal factory in the neighbouring village of Ban Ko Klang needs mangrove wood for producing coal and consequently there is employment for physically strong men

in cutting mangrove wood and transporting it to the kilns. As described before in Chapter 3, section 3.1.1 and this chapter, section 5.1.1, mangrove forests are dense with vegetation and it is very difficult to move around in the forest. There are poisonous snakes and other reptiles in the swampy areas and cutting mangrove wood in such an environment is a very arduous undertaking. Sung works an average of 15 days a month and he receives wages by the quantity of wood cut. In a typical day after labouring for 10-12 hours he will earn 90 baht, which compared to the average earnings of a fisherman is slightly less. Sung knows the local mangrove swamps very well and has learned to differentiate between the various mangrove species. Besides cutting mangrove wood for cash income he has 25 traps for catching crabs and small fish, which he places in the mangrove swamps. The catch is almost exclusively for family consumption. Although his work is physically demanding he likes the job, because he operates alone and unlike other wage labourers he has no one to answer to, except himself. A number of villagers gossip that the reason Sung works in the mangrove swamps is because he is in trouble with the law and is therefore a recluse.

5.4 LANDOWNERS

Only a couple of decades ago land was abundant and there were few pressures from the wider world to engage in anything other than fishing in order to make a living.[9] Land had little commercial value apart from being sites for house construction, coconut orchards, vegetable gardens and the occasional rice field.[10] The village was surrounded by dense forest with patches of rubber plantations here and there. Nowadays, the dense forest is giving away to rubber and oil palm plantations (see Chapter 3, section 3.2.3 on the history of diversification of local land use). Concomitantly, land values have appreciated.

With the increasing insecurity in fishing operations due to environmental problems and fish stock depletion, investment in land is becoming increasingly important for a number of households. Nonetheless, investing in land is by no means an option available to all households. Rather, it is the households in the high income category and some households in the middle income category that are able to do so.

In Ban Ko Kwang there were 9 households from the high income category that had bought land in the past five years. Out of

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[9] In Southern Thailand and particularly in the Western coast population density has always been low. As noted in Chapter 3, Phangnga Bay was a remote area of a peripheral region of the Siamese kingdom until the beginning of the 20th century. Based on oral histories of the elder fishermen there was never any population pressure on coastal lands. Individuals who wanted to move to new areas around Phangnga Bay could easily find uninhabited spots in which to settle down. It is only really within the past ten years that land prices have started to appreciate due to ongoing non-maritime seaboard developments, but even then the population density is low compared to other regions of Thailand, particularly Central Thailand.

[10] The coastal land is composed mostly of sandy soils and there are very few patches of land that are suitable for rice cultivation.

these, 4 households had bought land over 25 *rai* (4 ha). The other 5 households had bought land ranging between 15-25 *rai* (2.4-4 ha). Out of the middle income category, 4 households had bought land ranging between 15-25 *rai* (2.4-4 ha). No household in the low income category had bought any land during this time.

In Ban Laem Pho there were 16 households in the high income category that had bought land in the past five years. Out of these, 7 households had bought land over 25 *rai* (4 ha). 8 households had bought land ranging between 15-25 *rai* (2.4-4 ha) and one household had bought a 7 *rai* (1.12 ha) piece of land. Out of the middle income category, 11 households had bought land in the past five years. 6 households had bought land ranging between 15-25 *rai* (2.4-4 ha) and the remaining 5 households less than 15 *rai* (2.4 ha). One household in the low income category had managed to buy 10 *rai* (1.6 ha) of coconut plantation.

Of special importance here are women. As pointed out in Chapter 4, there is a strong matrilocal tendency in the villages, which favours the acquisition of property through the female line. As it is the females who stay in their natal village, compounded with the fact that women generally make the important decisions about investments, it is usually they who decide to invest in land. For example, among the wealthier households a large portion of the *ma'r* (bridewealth) is increasingly often invested in land.[11] In other words, land

[11] A distinction should be made between *ma'a* (bridewealth) and *sinsoot* (brideprice). The *sinsoot* is a payment for the bride's parents for bringing up the bride from a child to an adult. The value of bride price correlates with the financial status of the groom. In Ban Laem Pho and Ban Ko Kwang an average sum of money paid by the groom's family to the bride's parents range between 15,000 to 20,000 baht. This sum is also the average annual income of a village household. Often, the bride's parents give either a portion of the bridewealth or all of it to the bride after the marriage ceremony is over. The *ma'a* is a payment made both in kind, often gold chains, and money that the bride herself

is becoming gendered. Previously landownership was not so much an issue because the area was very sparsely populated and land was abundantly available.

The land which is most desirable is land that is suitable for growing rubber trees and to lesser extent land for cultivating rice. Due to the rapid appreciation of land values in the vicinity of the Southern Seaboard Development Project area in Ban Ko Kwang and the beach land that can be utilised for setting up souvenir stalls, the land in question that is the target for investment is usually land no more than a few kilometres away from the beach (see Chapter 7 for a discussion of land appreciation in the coastal villages and its implications to village society).

In the following three, case studies of village landowners are presented:

SU'S RUBBER PLANTATION

Su and Ibrahim are a couple with three children from Ban Ko Kwang. They belong to the high income category. The couple own a profitable 35 *rai* (5.6 ha) rubber plantation on the slopes of Khao Haang Naak, near the village of Ban Ko Kwang. When they married some 14 years ago the wife inherited 20 *rai* (3.2 ha) of land from her parents. Out of this land 8 *rai* (1.28 ha) was rice land in the neighbouring village of Ban Khlong Muang and the rest 12 *rai* (1.92 ha) was a small rubber plantation near the present site of the Southern Seaboard Development Project. Ibrahim used to both fish with gill nets and work their rubber plantation. When the land values started to appreciate in the region the couple thought it a good idea to sell the rubber plantation to outside investors and invest the proceeds of the sales in a larger rubber plantation from Su's

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will receive. Bridewealth is an important source of security for the woman should her husband divorce her or should the family face hardship.

relatives 3 kilometres inland from the village. They got 144,000 baht for their rubber plantation, which was good value five years ago. Ibrahim explained to me that the rubber trees had reached an age when they should be replaced with new ones. Compounded with the fact that his health was ailing he wanted to give up fishing altogether and work the rubber plantation which yields a more secure income.

YAA´S PINEAPPLE PLANTATION

Yaa is a fish dealer from Ban Laem Pho. Her husband Kowit is a fisherman who fishes with Yaa´s older brother. They have one child. Kowit is born in the neighbouring village of Ban Ao Nammau and moved to Ban Laem Pho when he married Yaa. Four years ago Yaa decided to buy 30 *rai* (4.8 ha) of land from the village of Ban Ao Nang. Her sister´s husband came from that village and his parents were selling some land as they wanted to go on a pilgrimage to Mecca while they still had the strength to do so. Yaa had saved 30,000 baht, which included a portion of her *ma´a* and what she had managed to amass as a fish dealer. The land in question was relatively cheap as it was 2 kilometres away from the road. Nonetheless, Yaa managed to obtain a loan of 10,000 baht for her older sister and another loan of 8,000 baht form her close friend from Ban Ao Nammmau. She bought the piece of land for 36,000 baht and invested another 5,000 baht in pineapple saplings and fertiliser. The pineapples yielded a bumper crop and she managed to pay off the half of the debt of 8,000 to her friend. The remaining debt she paid the following year and at the time I interviewed her she only had a debt of 3,000 baht to her elder sister. She did not pay any interest on the loans and unlike the loans concerning fish she did not need to give any shares. However, she knows now that she has established herself in the pineapple business and is relatively well off. Members of her kin or even friends may come and ask for loans from her and she must give them the requested loans as this is what is expected from her.

KOP´S AND AET´S COCONUT ORCHARD

Kop and Aet are sisters from Ban Ko Kwang. They live in neighbouring houses with their husbands and children. Their father passed away recently and the mother lives with her youngest daughter's, Aet's, family. Kop´s husband is from Ban Khlong Haeng and Aet´s husband is from Ban Ao Nang. Kop´s husband works as a day labourer in the gypsum pier and Aet´s husband fishes with his son for squid. Kop and Aet inherited a 15 *rai* (2.4 ha) coconut orchard from their parents, each receiving 7.5 *rai* (1.2 ha). They jointly bought their brother´s share for 15,000 baht as he married a girl from Ban Laem Sak and needed the money for the bride price. The coconut trees are over thirty years old and produce nuts well. Although both their husbands bring money home from their jobs, it is the coconut orchard that actually provides the households with a steady income. The husbands harvest the trees and the sisters husk and sell the nuts to a dealer from Krabi town who comes regularly to fetch the harvest.

It is interesting to note that in all cases it is the women who own the land. They manipulate their kin relations to raise necessary capital. They make the decisions where and when to invest. In fact, the land in the villages is gendered. It the females who represent continuity in the lineage. Men marry outside their natal communities. In case of divorce the land stays with the women.[12] It is female daughters who take care

[12] Divorce is not uncommon. In divorce cases there is a difference between rhetoric and practice that reveals power differentials between men and women. Ideologically speaking, according to Islam law men have more control in marriage and do not have to explain why they want a divorce. Often relatives attempt to intervene in a dispute that is in the process of leading to divorce. Also the Imam gives council and reminds the couple of the obligations they have to each other and the rest of the community. However, if divorce is inevitable it is much easier for a man than for the woman. The husband must only say aloud *chan yaa thoe* (I divorce you) three times in the presence of witnesses. According to

of ageing parents. Although male children inherit land equally they often sell their shares to their sisters who invest in rubber, oil palm, pineapple and/or coconuts. Men help their wives in the production process, but often prefer to work as labourers elsewhere or if possible engage in fishing operations.

With the rise in land values in recent years, the connection between women and land has intensified. Land is acquired in the vicinity of the natal villages of women. Although land in remote corners of inland Krabi would be much cheaper to buy and invest, villagers prefer land in the vicinity of the coast - an area which is still within a few kilometres from the village and the world associated with it.

It must be noted that for the time being landlessness has not yet developed into an acute social problem. Although it is clear that there is emerging a class of wealthy landowners there is little evidence of conflict between the landowners and the landless villagers. As noted before this, to a large extent is due to the fact that land is still relatively abundant and perhaps more importantly there is plenty of job opportunities for everyone in the villages to make a living. However, with increasing land prices it is only a matter of

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Islam law the wife on the other hand should have her case presented to the Imam who then decides according to local custom. Nonetheless, practice reveals that despite the rhetoric to contrary, women do not necessarily experience such a hard time in divorce cases. It must be remembered that in most cases the man is an outsider to the village community and the recognized fact that it is the woman who actually raises the children and bears the economic burdens and therefore divorce is not really frowned upon. Because of the tendency for matrilocal residence the husband leaves the house the couple has lived in and returns to his parent's village or goes somewhere else. The brideprice is not returned in the case of divorce. The husband on the other hand is required to divide with the wife all property acquired during the period of marriage. Children remain almost always with the mother (cf. Chavivun 1989:124).

time before land will become an inaccessible commodity for the households in the lower income category.

5.5 A MIXED ECONOMY

5.5.1 DEMISE OF THE FISHERMEN?

It has become clear that the villagers engage in a variety of income-generating activities and that the villages that once consisted solely of small-scale fishermen leading a fishing way of life as described in Chapter 3 have been exposed to non-maritime seaboard developments that have entailed a diversification in the sources and patterns of local livelihoods. Before turning to consider issues of economic success and social mobility among Ban Ko Kwang and Ban Laem Pho villagers it is worth contemplating the fate of small-scale fishing as a source of livelihood. In other words, does the diversification of sources and patterns of livelihood entail the demise of small-scale fishermen? To tackle this question we must first consider some of the differences and similarities between fishing and land-based activities.

Some of the differences between fishing and agricultural production include the following. The major resources in agricultural communities have strict spatial boundaries, whereas the area of fishing is more ambiguous as the fish are not constrained by any physical barriers. In the case of agricultural production, tenure or property rights in their principal resource - land - is of paramount importance, whereas in fishing production the principal resources - fish and the sea - can not be owned by particular individuals. Rather, the rights of access to particular fishing grounds may be controlled by traditional practices. Alexander, for example, presents the case of Sri Lankan beach seine fishermen, who have rigidly observed a set of practices to control the use of beach seine in specific times of the day and locations along the beach where they fish (Alexander

1977:240-242). Another method, presented by Forman (1970) in his study of Brazilian raft fishermen, was controlling information of the best fishing grounds and using information management to inhibit competitors from gaining access to the best fishing grounds. In agriculture, seasonal and individual distribution of the crop remains relatively constant, whereas in fishing, annual and individual catches fluctuate constantly. Alexander (1982) argues that planning in fishing production is much more difficult than in agricultural production as natural fluctuations make it harder to assess the effects of technological innovations. In agriculture, yields can be lifted by higher labour inputs. Geertz (1963) called this process `agricultural involution'. Lifting yields by additional labour inputs in fishing does not necessarily work unless there is a concomitant increase in investment in gear. In agriculture, both women and men participate in the production process, whereas offshore fishing has been a male occupation in all societies (Alexander 1982:258). The difference in the resiliency of fishing and agricultural production is of great importance. It is easier to give up fishing and return to it later on than is the case in agriculture. The disgruntled urban labourer can return to fishing without the major entry barrier of the price of land present in agricultural production (McCay 1981:7).

Apart from the differences described above there are a number of crucial similarities that point to the fact that fishermen are very much like other people engaged in land-based activities. Firth was the first anthropologist to remind us that fishermen, regardless of their occupation, were basically peasants (Firth 1946). In similar vein, Alexander in his book on Sri Lankan fishermen and rural capitalism argued that fishermen were the `quintessential peasants' (Alexander 1982:255). This is because in fishing communities like in agrarian communities the definitive criteria of peasant society included the household being the basic multifunctional unit of social organisation, dependence on external markets,

multiplex patron-client relations and factional modes of political competition, and highly developed risk sharing procedures. Faris argues that by focusing on the similarities of organisation and social relations of production rather than at the resource base or types of production in fishing and agricultural communities we can uncover the fact that the two types of communities are really the same (Faris 1977:236). If this line of argument is accepted then it means that the transformation of a fishing community into a community in which a variety of income-generating activities are found is perhaps less disruptive than one would think.

In the Thai case it is true that fishermen have very intricate knowledge of their environment that has accumulated through generations. They have sets of rules governing the access to fishing grounds and they are subject to the vagaries of weather, all of which makes fishing quite a different activity from the petty trading, various forms of wage labour and agricultural activities found in the villages. However, in fishing, the social relations of production, particularly ownership of the means of production, ways of obtaining capital and distribution of produce are all not that different from the land-based activities discussed above.

It can be observed that with the diversification of the sources and patterns of livelihood, the lifestyle of the villagers once based solely on fishing has diversified to the point that no longer can one talk about a fishing way of life. This has meant also that fishing has become another activity among the various income-generating activities found in the villages. However, this does not necessarily entail the demise of small-scale fishermen. In fact, with the advent of tourism into the region, there is an increased demand for high quality fresh marine produce for the restaurants that cater to tourists. Interestingly enough, it is the small-scale fishermen that cater to this need rather than the trawlers

that supply the export market. The case of Luc illustrates the point well:

LUC, THE PROFILE OF A CONTRACT FISHERMAN

Luc is a 35 year old fisherman from Ban Laem Pho. He has been a fisherman all his life and learnt the trade from his father who was one of the most adept fishermen in the village. Luc used to fish using a variety of equipment including gill-nets, handlines and traps. Most of the fish he caught he sold to a fish dealer from the neighbouring village of Ban Nam Ao. Four years ago his wife got a job as a cook in one of the restaurants of Railae Beach. With her help Luc was able to become the supplier of fish, particularly Cavalla, and crabs to five Railae Beach restaurants. The restaurants buy the fish and crabs from him at slightly below market prices, but supply him with the necessary gasoline for the fishing operations. Luc is quite happy with this arrangement as he does not have to haggle with the dealers about prices and has a guaranteed market for almost all fish and crabs he can catch. He is free to sell any excess fish and crabs elsewhere once the restaurants have received their shares. The restaurants, however, demand that all produce must be of high quality and as fresh as possible.

Besides the growing tourism industry that will surely create an increased demand for fresh marine produce, there is a increasing domestic market demand for marine produce at the regional level that will ensure that the services of small-scale fishermen are needed. However, with population increase in the villages it is no longer possible that all of the new generation take fishing as the main income-generating activity. Rather, small-scale fishing is becoming more and more entrepreneurial in that in order to make a decent living one has to produce a surplus at competitive prices. The following two case studies illustrate this:

KASEM´S AND MALEE´S SQUID BUSINESS

Kasem and Malee are a couple from Ban Laem Pho who engage in fishing for squid. Their case illustrates the popularity of squid fishing in Phangnga Bay. Kasem used to fish with *bet* (handlines) and *uan loi* (gill nets). Around eight years ago he decided to switch into using squid traps (*sai myk*). Making squid traps is a relatively easy task (see Appendix for details). As Kasem already had knowledge about making *loom* (portable fish traps) it was not a difficult thing for him to start making squid traps and start fishing with them. He was already familiar with the behaviour of squid and had caught squid with *bet* for own consumption. As for the marketing of the squid, Malee had already experience of dealing with fish. She used to sell her husband´s and a number of other fishermen´s catches in Krabi´s morning market. She still continued to sell fresh fish as before, but added selling squid to her repertoire. Most of the squid must be dried before selling as the local demand for fresh squid is limited. Every two weeks during the squid season she makes a trip to the town of Trang some 150 kilometres south together with her friend who also is a fish dealer. They borrow Kasem´s brother´s car for this trip. The brother does the driving and the women pay the gasoline expenses and also give him a 200 baht sum of money per trip for his services. In the past Malee sold the catch in Krabi´s market each morning. This meant that the catch of the day before had to be stored in ice overnight before it could be sold in the local market the next morning. The use of ice has greatly helped the marketing of the produce as squid can be sold fresh and therefore fetches a much higher price than dried squid. At the present Kasem has fifteen squid traps. These he checks each morning and evening. Besides selling squid at the local market, Malee has a small food stall in the Fossil Shell Beach where she sells snacks to visitors during day time.

IBRAHIM´S AND NIT´S LOBSTER BUSINESS

Ibrahim is an example of fisherman who is highly specialised. He catches lobsters (*puu mangkorn*) destined to be sold to restaurants in Bangkok and other big cities. Ibrahim used to fish with handlines, but started to catch lobsters when he heard that lobsters were especially well priced in the market. His wife, Nit, used to sell garden produce in the Krabi morning market and heard that lobsters were wanted by big city restaurants. She then approached a Chinese wholesaler who has a shop in the market square and asked whether or not he was interested in buying lobsters from her. He agreed to buy all the lobsters Ibrahim could catch. Catching lobsters is difficult as they are evasive animals and one has to dive on the coral reefs to look for them. They occasionally enter traps, but usually the way they are caught is by diving with only a mask and catching them alive by hands and bringing them to surface in a net-bag and then keeping them alive until they reach the dealer. Lobsters must be kept alive as they are exhibited in seafood aquariums in restaurants where customers pick the lobsters they want to eat. The average price for a lobster in such an restaurant may reach over 1,000 baht. Ibrahim receives around 300 baht for each lobster. However, although the unit price is very good, it is unlikely that he can catch more than 4-5 during a week. Catching lobsters requires considerable knowledge of their habitat and diving around in the sea without other equipment than a mask is tiring and therefore only very few bother to engage in it even though the unit price is good.

Many of the younger fishermen who do not happen to inherit or who are not able to invest in big boats and good equipment opt for wage labour in the gypsum pier or in the rubber plantations of the province. The transformation of the sources and patterns of livelihoods small-scale fishing communities of Phangnga Bay has therefore not meant the demise of the small-

scale fishermen, but has made it more entrepreneurial. Furthermore, fishing no longer is the sole source of livelihood for villagers. Rather, it has become a choice to engage in among many others.

5.5.2 SOCIAL DIFFERENTIATION

The Southern Thai coastal villages have been rapidly integrated to a modern capitalist world-economy, a course of development which has entailed a diversification of the sources and patterns of livelihood for village households. Although village society in coastal communities was not an egalitarian utopia, most social differentiation was based on differences in fishing skills and knowledge of local fishing lore. It should be borne in mind that until only very recently land was abundant and there was little population pressure on the existing resources. Obviously, in the past there were individuals who were better off economically than others, but then there were few markers of wealth. Most village houses were built in the same fashion, people ate similar foods, dressed in similar clothes, had similar education, and generally went through life experiencing more or less the same things as everyone else. With diversification of the livelihood base certain income-generating activities have become more profitable than others, requiring more skills than others. Consequently, there is also emerging social differentiation based on wealth. In contemporary village society there are a number of households that are clearly more wealthy than others. The houses of the more wealthy have brick walls and concrete floors. On the roofs there are newly installed TV antennas. Inside the houses there are refrigerators and ceiling fans. In the driveways there is a motorbike. A number of the most wealthy households own pick-up trucks. Children of the wealthier households receive more education. Almost without exception wealth has become the measure of success. There are few barriers against social mobility.

Without exception individuals who have become entrepreneurs such as Theary, the souvenir stall holder in the Fossil Shell Beach, Su, the owner of a rubber plantation, Yaa, the owner of a pineapple plantation, Kop and Aet, owners of a coconut orchard, Ibrahim and Nit, squid fishermen, and Kasem, the lobster fisherman represent the wealthy strata of village society. They have all taken advantage of the opportunities that the integration of the village economy to the world-economy has entailed. There is a substantial number of village households that are in the process of becoming wealthy and interestingly enough all are engaged in income-generating activities that are found in the rising tourist industry and the industrial developments of the region. Examples of these include Sombat, the tour boat operator, Chupanee, the waitress, and Yai, the conveyor belt operator and Luc, the contract fisherman. Of course, there are those who benefit from employment opportunities that tourist industry and industrial developments bring, but nonetheless remain poor. Examples of these include, Kop, the janitor, Lek, the casual labourer from the gypsum pier and Sung, the mangrove wood cutter, all of whom are engaged in labour-intensive activities. Within the fishing sector, there is a large number of operators that fish enough to feed their families and make a small profit, but remain poor in terms of wealth. Nevertheless, as noted before within the fishing sector there is a group of fishermen who are doing well and it can not be said that fishing as an occupation is becoming marginalised, rather it is becoming fragmented between those fishermen who eke out a living and those who have the capital and skills to become entrepreneurs.

Despite the emerging social differences in village society there is a general feeling of well-being among the village households. Unlike Northern and North-eastern Thailand there is virtually no migration from the Southern maritime villages to Bangkok and other big cities in search of work. The major

reason for this is the fact that, in times of trouble, the local natural resources still provide a base where one can fall back to if livelihood from the cash economy for one reason or another can not be derived. However, as discussed in Chapter 2 there are problems with the use of local resources and it is to the responses of local villagers to the conflicts over resource use that I turn to examine in the next chapter.

PART IV NEGOTIATING THE WINDS OF CHANGE

Part I of the thesis explored the political economy of resource use in the Andaman Sea region of Southern Thailand. The objective was to set the research sites within the larger political economic framework of the region with particular reference to the way the environment is being commoditised in contemporary Southern Thailand. It became clear that the Andaman Sea coast is not an isolated area, rather it is very much caught up in the developments that are taking place in the Southeast Asian world, namely rapid incorporation of the region into integral parts of the world-economy resulting in subsequent transformations of rural society. Parts II and III of the thesis focused on the social and economic worlds of the villagers in the research communities with particular reference to the way people make a living in the communities which are facing the economic and social transformations brought about by the incorporation of the once remote areas into the modern capitalist world-economy. With all the changes in the local environment and livelihoods, it has become apparent that the communities of Ban Laem Pho and Ban Ko Kwang have been ushered into a transitional situation of no longer being small-scale fishing communities and at the same time not quite having made a leap into communities relying on agrobusiness and industrial production. Most of the changes in the environment and livelihood structure have taken place within a couple of decades and the process is still going on. Such a state of affairs have put the villagers in a somewhat uneasy position of, on one hand, embracing a life style characterised by a fishing way of life and everything this entails, and on the other hand, embracing the changes and opportunities that modernity has brought about. On one hand, the local marine environment continues to be a source of life for villagers and, on the other hand, due to pressures of the commoditisation of the natural resources of the region, many villagers also want to take advantage of the opportunities

such commoditisation brings. I refer to this uneasy coexistence of the traditional way of life and forces of modernity as being "in between". Part IV of the thesis explores the ways the villagers of Ban Laem Pho and Ban Ko Kwang negotiate the changes brought about by the integration of the region into the world-economy. The two key questions are addressed: 1) In what ways do villagers respond to the problems brought about by the commoditisation of the environment delineated in Part I of the thesis? and 2) How the changes in the livelihood structure are perceived by the villagers?

6. RESPONSES TO RESOURCE CONFLICTS

A village leader ruminating about the future of small-scale fishing as a way of life:

Chao pramong phyynban tong suu phya vithi chivit khong rau tha mai suu mai mi botbaat nai anakhot khong sangkhom thai

(Small-scale fishermen must struggle to defend their way of life, otherwise they will not have any place in the future of modern Thai society.)

An NGO representative, reflecting on the place of fishing communities in modern Thai society, stated:

Chao pramong phyynban kamlang prasop karn plianplaeng khong sangkhom thai yaang run raeng rau tong chuai kae khai panhaa kon satthanakan cha yae long rau tong thamgarn duaikan kap chaopramong haa vitthi thi mosom kap satthanakan nai rabob phyynthaan vitthi nyng ko khyy kan soerm sakkayaphap anakhot konh chao pramong phyynban khyn yuu kap kan mi suan ruam nai nayobai khong rat laew nai kan pattana khong sangkhom thai

(The small-scale fishermen are facing the demanding changes that are going on in modern Thai society. We have to help solve problems before the situation gets out of hand. We have to work together with small-scale fishermen and look for solutions that suit their needs. One solution is empowerment. The future of small-scale fishing depends on whether they will have a say in the policies of the state and be able to participate in the development of Thai society.

6.1 ENVIRONMENTALISTS AND FISHERMEN

1993 was a real 'Environment Year' for Krabi. NGO (Non-Governmental-Organisation) activity commenced in the province, seminars were held, mangrove forests were rehabilitated and a monthly meeting of local environmentalists was started. Within a relatively short time span, Krabi became widely known as a province of high environmental consciousness thanks to the coverage by local media. Since 1993 the environmental work has continued and is currently expanding to incorporate various aspects of environmental conservation and community development in the province.

In the following pages, the initial development of the local environmental movement and its consequences to the local communities is traced.

The history of NGO activity in Krabi is only recent. At the request of a few local intellectuals and individuals concerned about environmental issues headed by Mr Preecha Poolphokphol, a local hotel owner and Chairman of Krabi Chamber of Commerce, NGO representatives were requested to come and help solve pressing environmental problems in the province.[1]

Compared with northern and north-eastern Thailand where there are numerous NGOs working with the local communities in helping to solve pressing problems related to community development and environmental protection, there are few counterparts in southern Thailand (Gohlert 1991:83). To my

[1] As noted earlier, tourism is an important source of livelihood for the province. A number of businessmen involved in the tourism industry have been concerned about the destruction of coral reefs and local forests as they function as important magnets drawing visitors to sample the natural beauty of the province. In addition to a few businessmen, the fledgling environmental group includes a number of teachers from Krabi's schools and a few professional people who are interested in environmental issues.

knowledge, at the moment there are only three NGOs working in Southern Thailand with small-scale fishing communities. On the eastern coast in Songkhla province there is a Thai NGO called 'The Small-scale Fishing Community Integrated Development Project'. This NGO promotes community development programmes such as savings groups, conservation and rehabilitation of coastal areas. It also acts as a facilitator for the networking of small-scale fishing groups and supports villagers in forming their own trade groups. The Earth Island Institute is a recently founded Thai NGO based in Pattani that works with the local small-scale fishermen in community development projects. On the western coast, in Trang province, there is the *Yadfon* (Raindrop) Association established in 1985. *Yadfon* Association supports local fishing communities conserving local mangrove forests. All these three NGO's and the one that started to work in Krabi (see below) could be called ENGOs or Environmental Non-Governmental Organisations as the focus of their activity is the environment (cf. Harries-Jones 1993:44).

In 1993, at the request of the fledgling local environmental group, the Thai Volunteer Service(*Konkan asasamak phya sangkhom* as it is referred to in Thai), a Thai NGO based in Bangkok, sent their representative Mr. Chongrak, a Thai Buddhist from Nakhon Si Thammarat, to Krabi to find out about the needs of the local fishing communities.[2] It soon turned out that there was an acute need for the conservation of the diminishing mangrove resources.

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[2] The Thai Volunteer Service is associated with the Social Science Research Institute of Chulalongkorn University. Its main objectives are cooperation and coordination among NGOs, greater efficiency of NGOs and their staffs and search for appropriate development strategies (see Gohlert 1991:125-129 for details of the history and activities of the Thai Volunteer Service).

Together with two of his friends from Pattani and Bangkok, who are also NGO workers, he surveyed the coast looking for co-operative villages where the work could begin. Not all villages were interested in the conservation programme. In some villages there were charcoal factories and the village heads feared conflict should mangrove rehabilitation programmes be introduced in their villages.

During the course of the survey they found the village of Ban Laem Sak in northern Krabi, in which people were interested in a rehabilitation scheme of the local mangrove forest that was fast disappearing due to illegal logging. With the consent of the village development committee, they made arrangements for a portion of the mangrove forest to be replanted and declared a community forest (*paa chumchon*). A meeting was held after the Friday prayers in the village *surau*, it being an effective venue for an awareness building campaign. A date for the planting of mangrove saplings was set.[3]

An area of 200 *rai* (32 ha) of community land was scheduled to be planted with *Rhizophora* saplings. The saplings were supplied by the Krabi Forest Department, Mangrove Branch. On a particular Saturday some 600 villagers assembled in the village square waiting for the deputy governor to appear to start the planting ceremony. After waiting for some time, he arrived with an armed escort and proceeded to give a speech to the villagers thanking them for the conservation spirit they had shown. After his speech each villager was then assembled in a line and mangrove saplings were handed out. Following the example of the deputy governor, planting began in the area reserved for that purpose and was completed in six hours. It

[3] At this point I arrived on the scene to do my field research. Within a few days of my arrival in Krabi I visited Ban Laem Sak with Mr Chongrak, whom Mr Preecha, the leader of the local environmentalists, introduced to me.

was made clear to the villagers that once the forest had matured anyone could make use of the resources in the community forest provided other villagers would agree. The planting of the mangrove saplings was televised by TV 7 on national television and the villagers were very proud that their village received such attention.

This occasion started a chain reaction in terms of environmental conservation activity in Krabi province. Mangrove saplings grow relatively fast and the word spread to neighbouring villages about the reforestation scheme and the NGO workers were requested to make further reforestation schemes in other surrounding villages.

Due to the success encountered in Ban Laem Sak, the NGO workers decided to hold a seminar on mangrove forest rehabilitation and conservation for village heads from some of Krabi´s fishing villages in Ao Nang, Krabi. On 21.-22.8.1993 the seminar was held and some 80 people took part in it. The deputy governor of Krabi was invited to give the opening speech, followed by lectures on mangrove forest ecology together with a workshop for the village heads in which the current problems of mangrove forest destruction in their villages was mapped. According to the NGO workers, this seminar was a success in terms of spreading environmental consciousness to the village heads, who it was hoped would convey the messages from the seminar to their villagers.

A few weeks after the seminar, another reforestation scheme was carried out in the neighbouring village of Ban Laem Sak. On this occasion some fishermen voiced their concern over the use of push nets *(uan run)* utilised by some fellow fishermen in the village and requested the NGO workers to do something about the problem. This issue, however, was felt to be much more problematic than the reforestation scheme and the issue was put on hold for the time being. The NGO workers were

concerned that the *uan run* issue would cause division among the fishermen and they were not keen to start a conflict between the two factions.

In the mean time in order to provide moral support for the fledgling environmental movement in Krabi, it was decided that the Third Environmental Seminar of Southern Thailand, sponsored by The Environmental Protection Agency of Thailand, was to be held in Ao Nang, Krabi, on 20-22.10.1993. The themes of the seminar dealt with local forest resources including upland rainforests and mangrove forests and coral reefs. Some 200 people, including NGO workers from other parts of Southern Thailand, officials, local environmentally concerned individuals and villagers, took part in the seminar. Speeches and lectures about the importance of environmental protection were given and workshops on mangrove forest, rainforest and coral reef protection were held.

The villagers, with the aid of the NGO workers, made conservation plans regarding the natural resources of their communities. It was felt that the seminar was successful in bringing the villagers together to share views about the problems they faced. Also, many villagers used the seminar as a forum to vent frustration against officialdom, which in their view was corrupt and useless in solving problems. For example, statements like: "*Mya phuak soosoo choop phuut thyng ryang kan anurak singwaetloom wela dieukan phuak man ko mi borisat thii tham raai paamaai thai thi yang lya*" (While many MPs like to talk about conservation issues, at the same time the very same MPs have their own companies that destroy Thailand´s remaining forestry resources) or "*Ai phuak soosoo mii tae kan len phai thi saphaa laew ko kin law phuak man mai son chai nai khwam tongkan khon prachaacon lok*" (MPs are just a bunch of people who play cards in Parliament and drink beer and don´t give a damn about the needs of the people." or "*Phuak chao nathi khae son chai nai khwam saduak khong tua*

eng" (Officials are just interested in their own well-being) or "*Nai samai thi mii khommunit pamai thi lai haeng ko mai doen tham rai phro phuak chao nathi mai klaa khau pai tham rai pamai thinan*" (At least during the time of communist insurgency many forests were spared as officials could not enter the areas to destroy the forests).[4] Again the NGO workers felt that the seminar was a success in boosting the local environmental consciousness and mapping key problem areas.

An important activity of the NGO workers is going to local schools and working with the school children in raising their concern for the environment. In fact, due to this environmental consciousness raising activity (*kan saang jitsamnyk singwaetloom*) by the NGO people, Krabi has acquired a environmental consciousness reputation in official circles. A good example of this is when the Electricity Generating Authority of Thailand surveyed the province for a prospective nuclear power plant site, the deputy governor remarked publicly that should such a project ever end up in Krabi there would certainly be problems as: "There are many environmental conservation groups who are active. These groups build public opinion here. They will spearhead a counter move" (Bangkok Post 3 March 1994). The deputy governor was referring in his statement to the local environmental movement and its activities in raising public environmental consciousness.

Following the successful mangrove rehabilitation scheme, in January 1994 the Ban Laem Sak village development committee with the prompting of NGO workers decided that they want to create a Marine Life Reserve (*Khet raksaa satnam*) in village waters. First the word *anurak*, to conserve, was suggested, but it was felt the word *raksaa*, to take care, would be more

[4] Such statements made in public would have been unheard of a decade ago. The current political atmosphere is open for criticism and public debate.

neutral as the word *anurak*, to conserve, has acquired a negative tone among some people in Thailand. An area of some 15 square kilometres of coastal waters was designated to be part of this Marine Life Reserve. Local fisheries officials from the District Fisheries Station in Ao Luk were consulted and it was agreed that such a reserve would serve conservation purposes. On a particular day the villagers were assembled on the village pier and a sign designating the reserve area was put up. On this occasion it was publicly declared that no one had the right to fish in this area for a period of one year until the fish, shrimp and crab population had recuperated.

Not all fishermen were content with the establishment of the Marine Life Reserve. In Ban Laem Sak itself there were over twenty fishermen who used the illegal *uan run* nets in fishing operations. They continued to encroach into the newly established Marine Life Reserve at night. All the villagers knew who the culprits were and the violators were given a warning by the village development committee to discontinue using destructive technology. When the warnings were of no avail, the village development committee decided to confiscate the violators' boats and equipment. This was accomplished without violence and the boats were turned over to the District Fisheries Station in Ao Luk. There the boats could be redeemed against a fine and a pledge to discontinue using *uan run*. Ever since this incident, social pressure within the village society and the fear of sanctions against violators who would like to use *uan run* in fishing operations has kept violators at bay, at least for the time being.

6.2 BAN LAEM SAK SEMINAR AND THE FORMATION OF SMALL-SCALE FISHERMEN´S ASSOCIATION OF SOUTHERN THAILAND

On 22.-24.4.1994 a seminar (*samana*) organised by the fishermen themselves with the aid of the NGO workers and sponsored by the Office of the National Environment Board was held in Ban Laem Sak. Both NGO workers and fishermen who took part in the seminar considered the seminar a remarkable landmark in the struggle of the small-scale fishermen against the trawlers that were threatening their livelihood. Over 200 representatives from fishing villages from ten southern provinces, including Krabi, Trang, Phuket, Phangnga, Pattani, Nakhon Si Thammarat, Suratthani, Chumporn, Phattalung and Songkhla, took part in the seminar.

Groundwork for the seminar was laid by the various projects organised by the NGOs working with the fishermen. Almost all the representatives came from villages were there had been some kind of development activity going on. However, what is remarkable is that for the first time the fishermen came together to share their experiences and discuss their problems. As the seminar progressed it became clear that almost all fishing villages regardless of geographical location faced similar kinds of problems. The participants realised that they were not alone, but that other small-scale fishermen faced similar problems. Above all, the seminar functioned as a consciousness builder. *Jit samnyk* (consciousness) about the common threats and problems was built through the discussions during the seminar. As a result of the seminar it was decided to form The Small-scale Fishermen´s Association of Southern Thailand (*Samaphan chaopramong phyynban paktai*). *Phyynban* translates to local/ traditional/artisanal. The aim of the Association is to emphasise the fact that small-scale fishermen use traditional technology in fishing operations. Another interesting fact in the seminar was that there were no officialdom present in the

meetings. This was important for the participants as they could voice their opinions freely and informally on their own terms. Of great importance also was the fact that the fishermen could express themselves in the *paktai* dialect. Although virtually everyone understands Central Thai, many fishermen feel uncomfortable if they have to talk using some other dialect than the *paktai* dialect.

In the following pages, I shall present excerpts from my field notes regarding the seminar in order to illustrate how the meso-level collective action in fishing communities in Southern Thailand translates into practice:

"22.4.1994. The Ban Laem Sak village meeting hall is bustling with activity. Women are making food for the evening meal. Representatives from all over the southern provinces are arriving on pick-up trucks to the village. NGO workers are helping discuss the seminar program with the villagers and putting up posters about environmental protection on the walls of the village meeting hall... The evening program begins with a shared meal of mutton and fish curry and saffron rice. After the meal people take their places and the each participant presents themselves to the rest. A presentation about the purpose of the seminar is presented by one of the elder fishermen, who acts as the chairman of the seminar. Informal discussions follow and people retire to various houses for the night."

"23.4.1994 We woke up at six o´clock in the morning and gathered for breakfast at the village meeting hall. This was followed by a prayer session in the village *surau*. The program began at nine o'clock and the representatives from the ten provinces each shared their experiences and problems with the participants. The presentations included both pleas for help and cases of successful problem solving.

CASE 1.

The villagers from Ban Nare, Pattani discussed the problems caused by trawlers that encroach upon coastal waters. Pattani is a particularly disturbing case of environmental destruction caused by the commercial fishing industry. One of the largest trawler fleets in the Gulf of Thailand is found here. There are also many fish food processing plants and prawn farms found along the Pattani coast. The factories producing frozen and canned seafood flush waste water into the sea. The fish pier causes oil spills and the prawn farms are responsible for the destruction of mangrove forests. Also there is an outbreak of thorny shells introduced to the area from fishery officials' clam nurseries. The thorny shells are a curse as they cause nets to rip badly. Some trawlers turn the sea bed upside down by towing iron grates while searching for *hoilai* or striped clams. The sea grass is destroyed in the process and the water becomes muddy. The local fisheries officials label the Muslim fishermen as backward and resistant to change. In order to do something about the problems the villagers with the help of NGO workers from the Earth Island Institute in Pattani decided to create an artificial reef 3000 metres from the shore. The artificial reef was constructed by using local knowledge. This was done by pouring sand into jute sacks and putting bamboo spikes into the sack so that the sack resembled a big porcupine. The artificial rocks where then dumped into the sea at ten meter intervals forming a ten kilometre long continuous reef. The artificial rocks made this way last for one season after which they must be replaced. The artificial reef functions as a home for shrimp and squid which like to lay eggs on the sacks. As a result of the creation of this artificial reef the crab, shrimp, squid and fish catches have increased. Also the trawlers have not encroached upon the artificial reef for fear of ripping the nets in the bamboo spikes. The fight, however, is not yet over. A mangrove rehabilitation project is planned.

CASE 2.

The villagers from Ban Laem Sak, Krabi discussed the successful mangrove reforestation scheme and the formation of a Marine Life Reserve (*khet raksaa satnam*) in the village waters. It has became apparent that after the creation of the Marine Life Reserve the crab and fish catches have increased.[5]

CASE 3.

The representative from Ko Pu, Krabi discussed the problem of dynamite fishing and trawling. The area around the island of Ko Pu is the breeding ground of the endangered dugong and the villagers had formed a 69-member strong voluntary association to protect the dugong. The villagers have held a demonstration in front of the district office demanding the punishment of the transgressions by the trawlers that destroy the sea grass (*ya thale*) that is vital for the survival of the dugong. This, however, has had no effect and the villagers were hoping for advice from the other participants.

CASE 4.

The representatives from Ban Bo Muang, Krabi told a similar story. Three times they had gone to plead the district officials to do something about the trawlers operating in the coastal waters, but each time to no avail. Help was requested from the participants of the seminar.

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[5] The life cycle of fish, mollusks and crustaceans is relatively short. This means that even after a period of a few months when the animals have had the time to mature undisturbed the following yields will show increases. This, in return, is encouraging for the local fishermen as they can see concrete results from conservation efforts within a relatively short time span. As a result the will to conserve local resources increases as the benefits are imminent.

CASE 5.

The case of Tha Chana village, Suratthani. Here trawling had been an immense problem. The trawlers used to sweep all fish before they had even matured and the villagers were worried that their children would not have any fish to catch. With the help of the NGO workers from Songkhla the villagers made artificial reefs. Cement was poured into tin containers used for storing rice and steel spikes were put into the cement. On a particular day after the cement blocks had been finished the provincial governor and local fisheries officials and the Director of the Office of the National Environment Board from Bangkok were invited to open the artificial reef launching. The event was televised. The cement blocks were lowered into the ocean bottom 3000 metres from the shore forming a 14 kilometre long continuous artificial reef. Each household had contributed 100 baht for the undertaking to purchase the necessary cement, tin containers and steel spikes. Some help had been acquired from a cement factory that donated some cement for the project. The villagers had then formed into a 'Kolek Group for the Marine Resources' (*Klum kole anurak sappayakon chai fang*).[6]

Within only a few months after the making of the artificial reef the villagers noticed that the crab catches had increased. Also squid liked to lay eggs near the artificial reefs and *plaa thuu* (Indian mackerel) catches had increased. The artificial reefs provided a location for marine animals to lay eggs and feed. As a result of the publicity campaign surrounding the reef construction the trawler owners decided not to encroach on the 3000 metre zone. The Tha Chana case is an example of local initiative in which the villagers can take care of their own local resources provided the officialdom and

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[6] The *kolek* are handsomely painted 10-15 metres long traditional fishing boats used by Muslim fishermen in the eastern coast from Suratthani to Narathiwat.

business interests show some degree of sympathy and understanding for the needs of the villagers.

CASE 6.

The only Buddhist representatives came from Chumporn where small-scale fishermen are mostly Buddhist. Chumporn is another home for a large trawler fleet operating in the Gulf of Thailand. Here the problems are similar to those found in Pattani. The Chumporn representatives complained that the local officials there are exceptionally corrupt and useless and were requesting advice from the participants of the seminar on how to proceed to deal with the problems caused by the trawlers.

CASE 7.

Phattalung representatives complained of the fact that *uan run* fishermen from Songkhla came to operate in the Thale Luang which is a fresh water lagoon that forms the northern end of Songkhla lake particularly known for its highly prized swallows´ nests. Like the Chumporn representatives the Phattalung representatives requested advice from the participants on how to solve their problems.

CASE 8.

Phuket representatives talked about the successful release of shrimp to the sea funded by the Fisheries Department.

CASE 9.

Trang representatives talked about the mangrove rehabilitation program that has been undertaken in the villages of Ban Tung, Ban Laem Kram and Ban Laem Trai, Sikao District, Trang. In addition the villagers established a sea grass protection zone along the coast in collaboration with the district officials and Yadfon representatives (see Niti et al 1993:111-122 for a detailed discussion of the mangrove rehabilitation programme in Trang).

These presentations where followed by a workshop in which the villagers were divided into various groups and each group with the help of NGO workers mapped out the problems faced in each case and drew up action plans in order to solve the problems on the basis of what they had heard in the presentations of the successful cases.

After a long day we all retired to the host families for the night. Even in the night time many fishermen did not want to sleep, but stayed awake discussing their problems with others."

"24.4.1994. Woke up like yesterday. Today the action plans that were discussed in groups during the workshop yesterday were presented to all the participants. The elder fishermen and NGO representatives held the concluding speech in which they summarised the what had been going on in the seminar. At this point the formation of the Small-Scale Fishermen´s Association of Southern Thailand was declared and its aims and objectives were discussed. It was felt that the seminar had been a success in the sense that the small-scale fishermen could stand on their own feet and deal with threats to their livelihood constructively. It was felt that another meeting should be held where the problems of small-scale fishermen could be discussed with government representatives. The officialdom would see the importance of the small-scale fishermen in society once the people got on the move. It was agreed that the Association would propose to the officials that the current 3000 metre zone should be expanded to 6000 metres. The seminar ended in a shared lunch, after which the representatives headed home."

6.3 SUSTAINABLE RESOURCE USE THROUGH EMPOWERMENT

Drawing on the material presented in both Chapter 2 and the previous sections in this chapter, Table 10 summarises the conflicts over mangroves and fish by listing the choices of resource utilisation by the various parties, the political demands involved and the methodologies used to solve the conflicts.

TABLE 10. SUMMARY OF VARIABLES INVOLVED IN THE CONFLICTS OVER LOCAL RESOURCES

	CHOICES FOR RESOURCE UTILISATION	POLITICAL DEMANDS	NGO INTERVENTION
Mangroves	1) Contracted logging by charcoal industry	Respect for traditional forest uses	Ecological awareness Solidarity groups
	2) Land development schemes		Rehabilitation schemes
	3) Sustainable use and community stewardship		
Fish	1) Trawling	Respect for fishing territory	Ecological awareness Solidarity groups
	2) Small-scale fishing		Artificial reefs

It has become clear that the parties involved in the conflict over local resources, that is mangrove forests and fish, are 1) small-scale fishermen and 2) various outsiders ranging from entrepreneurs involved in trawling and shrimp farming to charcoal factory owners and land developers. The outsiders

view the mangroves and fish as assets that should be utilised to the fullest economic advantage as quickly as possible. The small-scale fishermen on the other hand demand that their rights to fishing territory and mangroves are respected by the outsiders. With the help of NGOs the small-scale fishermen have been put in touch with each other, and collective action in the form of construction of artificial reefs and the rehabilitation of mangrove forests have been utilised as practical methodologies against the threats posed by outsiders.

Drijver (1992) points out that the main idea of participatory projects is that local people have a decisive say in the objectives, designs and implementation of such projects. The meso-level collective action by small-scale fishermen described in the previous sections has shown that local communities have high incentives for managing their resources sustainably. In this process, which is very strongly linked to the process of empowerment of the local producers, the role of external agents such as the NGOs is crucial for success. They are needed to channel ideas and resources to the community and serve as intermediaries to the outside world (Friedmann 1992:158).

Harries-Jones points out that environmental NGOs are organisations for social advocacy and one of the primary avenues for advocacy is consciousness raising combined with political empowerment (Harries-Jones 1993:44). In the Thai case the NGOs have clearly combined the raising of environmental consciousness (*saang jit samnyk singwaetloom*) among fishing communities with political empowerment (*saang sakkrayaphaap*). The NGOs use seminars, meetings and face-to-face encounters with individual fishermen as the strategies in this consciousness building process. According to NGO ideology the mangrove rehabilitation projects, creation of community forests, creation of marine life reserves and creation of

artificial reefs through which the local resources will be taken care of by villagers themselves are practical methodologies of helping the people to help themselves.

The NGOs also view that the problems of livelihood faced by coastal fishing communities that need to be tackled are wider than merely the environmental issues. These form the basis of livelihood, but economic and public development policies must recognise the place of the small-scale producers within the larger society.

The development policies of the state on the other hand have supported the expansion of aquaculture, industrial activities and tourism, all capital intensive activities from which only a small minority reap the benefits, while the majority have to pay the price in terms of environmental destruction and the loss of the basis for their livelihood. In other words, the state views development in terms of quantitative results such as increasing the gross national product and the improvement of infrastructure.

In order to counter such a trend of development, the NGOs propose the creation of zones for the needs of industrial development, tourism and aquaculture as a part of coastal management. If we take the example of Krabi, they argue that each industry must be contained within a specific zone designated for it. Since changes in the economic structure of the coastal zone is inevitable these changes should be contained within a specific geographical area. This, they argue, can be done through limiting the issuing of permits to only those development projects, be they industrial developments, tourism or aquaculture, that would set up operations into specifically designated areas.

The NGOs together with the representatives of the Association of Small-Scale Fishermen of Southern Thailand also propose the

expansion of the current 3000 metre fishing zone reserved for small-scale fishermen into 6000 metres. They also propose sustainable development programmes geared to help fishing households. Such programmes would include such things as the provision of deep water wells for villagers, education programmes for poor families and the creation of village savings groups.

Small-scale fishermen are no doubt a rising force in the political scene of Southern Thailand. For the first time in history they have organised themselves in order to take meso-level collective action against the threats to their livelihood. The formation of the Small-Scale Fishermen´s Association of Southern Thailand functions as an organisation that gives political muscle and bargaining power for the fishermen to fight against the common threats that they face or as one leader of the association put it "*diew ni rau roem mi phalang mya chaopramong phyynban thi prasop panhaa khrai khraikan maa ruamkan rau saamart suu phuak thi maa khatyaang kap sit khong rau*" (Now we are starting to have power, when fishermen who face similar problems come together we can fight against those who come to contest our rights.) Previously, the fishermen´s groups have been organised only at the local village level and even here only in a few instances. The aim of the association is now to incorporate as many fishing villages as possible in Southern Thailand. Already in the Ban Laem Sak seminar it was agreed that contacts with the fishermen from the provinces of Satun and Ranong should be made as no representatives came from there to the seminar. Such a peoples´ organisation can begin to exert influence on government policies regarding fisheries development or as Friedmann has noted, "building civic organisations is an empowering social process" (Friedmann 1992:161). This will not be an easy task as business interests will not surrender their claims easily. However, the situation is ripe for public debate and a part of the of the population is at least

remotely aware for the need of conservation of natural resources. In this, the media has been instrumental. The concept *anurak* (conservation) is not entirely alien to contemporary Thai society, although not everyone is aware of its substantive content. Some of the NGO representatives have voiced the idea that perhaps, for the first time the next National Economic and Social Development Plan will include a section on small-scale fisheries development.

The current political situation in Thailand is favourable for such activities. This has not always been so in rural Southern Thailand. In the 1970s the political situation in the country and in parts of the south including Krabi, Suratthani, Nakhon Si Thammarat among others was tense and the population suffered from fighting between the government forces and communist guerrillas (cf. Turton et al eds. 1978). In the 1980s this struggle gradually died out, but many parts in the south were still renowned for violence. The *nakleng* (gangster, strong man) and *chaopho* (gangster boss) still hold considerable sway in local politics. For example, in 1986 one of the local leaders from a fishing village in Sikao district, Trang who lodged a complaint with the local administration to help stop the illegal logging of the village mangrove forest by a coal factory was gunned down. Nonetheless, in the 1990s the movement for grass roots democracy has gained new impetus as exemplified by the cases from Trang, Pattani, Krabi and Suratthani discussed above has gained new impetus. Such development is no doubt linked to the general trend in Thai society in which the questions of human rights and democracy are publicly debated and in which wider participation in the decision processes is called for by intellectuals and NGOs (cf. Vitoon 1991:44-45; Vitoon 1992:5-7, 186-190).

A more cynical reading of the growth of the environmental movement discussed above could argue that what happened had more to do with the establishment of an environmental NGO in the political landscape of Krabi province by manipulating small-scale fishermen to rally against perceived outside threats that were responsible for the commoditization of the local environment than simply environmentalists trying to help fishermen to help themselves. It is true that in contemporary Thai society the environment is used as a rallying point for individuals who want to establish themselves in the political scene of the nation. The Thai NGOs have indeed become such a powerful force in Thai politics that policy-makers can no longer easily overlook them in the decision-making processes. While there may be elements of manipulation of the small-scale fishermen by raising the consciousness of certain individuals with regards to the ongoing resource conflict it would be difficult to rally such a large group of small-scale fishermen to take collective action as described above if the problems were not perceived by the fishermen as common problems to be addressed. Fishermen are by no means unaware of the political landscape in contemporary Thailand and are suspicious about the motives any individuals who claim to work on their behalf. Whether the environmentalists are helping the fishermen to help themselves because of political manoeuvring for some kind of self-gain is of little relevance for the fishermen. They perceive the establishment of a Small-Scale Fishermen's Association of Southern Thailand as a form of empowerment by which they can access policy-makers at the national level and pressure the state to have their say in future fisheries management policies of the region.

7. THE SOUTHERN THAI MARITIME SOCIETY IN THE WORLD-ECONOMY

7.1 COMMODITISATION OF LOCAL ENVIRONMENT

Apart from remote mountain villages in Northern and North-eastern Thailand and a few isolated fishing villages along the coast of the Andaman Sea most communities in contemporary Thailand have been integrated into the Thai nation state and the national economy, which in turn is very much linked with the world-economy.[7] As a result of the process of development in Thailand rural society is making a transition from an agricultural economy to an industrial economy. Consequently, the ongoing transition process has meant that local people have to either find new ways of making a living or adapt old ways to meet the needs of the modern market economy. Put it another way, the encounter with modern market economy entails a diversification of sources and patterns of livelihood (see Chapter 3, section 3.2.3 for a discussion of this process). The maritime communities of Ban Ko Kwang and Ban Laem Pho are good examples of rural communities that are making this transition. In these communities, villagers have turned to the tourist industry as illustrated by the cases of Theary, the souvenir stall holder and Sombat, the tour boat operator and industrial developments as illustrated by the cases Yai, the conveyor belt operator and Lek, the labourer at the gypsum pier for new sources of livelihood or adapted old ways to meet modern needs as illustrated by the cases of Luc, the contract fisherman and Ibrahim, the lobster fisherman (for details of these individuals see Chapter 5).

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[7] Since the late 15th century the modern capitalist world-economy has expanded and incorporated peripheral regions within larger political economic systems and as a result of this process alternate modes of production have been subsumed under the rubric of capitalist market economy (Wallerstein 1974, 1979).

Transformations of rural society, however, are seldom without problems.[8] In the following pages, I shall present a number of problems that contemporary villagers in Ban Ko Kwang and Ban Laem Pho have to face with regards to the non-maritime seaboard developments, which are intrinsically about the commoditisation of the local environment. These problems range from the appreciation of land prices due to land speculation in the vicinity of the Southern Seaboard Development Plan (SSDP) area and tourist establishments and getting used to the industrial work schedule in the gypsum piers and tourist establishments to the conflicting demands of, on one hand, preserving the old ways of making a living and, on the other hand, taking advantage of the opportunities that the commoditisation of the environment brings.

In Chapter 5 I presented a number of case studies of Ban Ko Kwang villagers who made a living by working at the gypsum pier. These individuals had made a conscious choice of abandoning their previous occupations as fishermen or as agricultural workers and engaging in the new opportunities that industrial developments had brought about. In this connection, we can ask how does the SSDP affect the livelihood of local villagers at a more collective level? As discussed in Chapter 2, the official stance is that the SSDP will bring prosperity and development to the region and that villagers will benefit from it. However, as in all industrial projects like the SSDP there are both positive and negative effects. Positive effects include electrification of the village, the construction of a dirt road that is to be paved in the near future through the village, the planned construction of water pipelines and provision of labour opportunities for many villagers, who work as day labourers on the construction sites, as night guards on the sites and on shifts loading the gypsum into the huge container ships.

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[8] Cf. Anan 1989; Hirsch 1994 for discussions of contemporary rural Thai society.

The village headman, Kasem, views the changes with some apprehension, but as he stated: "*ai ryang soutenseebod man ko mai nae man cha pai thyng nai samrap chao ban tha man pattana muban rau phom ko hen duai tae panhaa yuu thi waa ai phuak nai thun thii maa syy thidin thi ni mai khoei bok waa man cha tham arai kap thi din nan myankap tha rya gipsum phom ko dai hen wa man cha tham arai kap thidin mya wan nyng man au rot thai maa tham thaang nai thana phom pen phuyai ko na cha book kan noi wa arai pen arai chao ban cha dai ruu wai*" ("This business about the Southern Seaboard Development Project, we don't know yet where it will go, I guess if it will bring development to the villagers I agree with it. The problem with it is that when the capitalists come to buy land here they never tell us what they are going to do with it. Like when the Gypsum Pier was built they just came one day with the bulldozers and started making a road".)

The negative effects include environmental degradation, the rapid appreciation of land values and social costs of industrialisation. Oil spills from the container ships when they clear their ballast is a very serious problem. The propellers of the ships also chew up sand from the sea bed making the waters murky. Already the coral reef near the pier is in grave danger of pollution. Some fishermen complain that certain fish species can no longer be found in the vicinity of the gypsum pier. Furthermore, the pier has interfered with the local current and tide patterns affecting the movement patterns of fish. Thus the fishermen have to venture further out to catch fish. As Hem (see Case 6, Chapter 4, for details of his household) complained: "*Mya rya gipsum khau thi thaa mii namman thi long nai thale tham hai plaa tai pakarang ko sia diew nii ko tong ook pai haa plaa klai kua doem plaa myk ko mai khau sai nai boriwen tha rya iik*" ("When the gypsum ships arrive to the pier their oil is released into the sea killing fish and spoiling the coral reef. Now I have to go out fishing further away than before. Also the squid do not enter

the traps in the pier area any more"). In addition, during the dry season gypsum trucks that drive through the village to the gypsum pier raise enormous clouds of dust that makes the air a health hazard.

Land speculation in Ban Ko Kwang and its vicinity has created problems for many villagers. A few years ago during Prime Minister Chatichai Choohavan´s office, local MP Pracheet from Krabi won the local elections by promising to help bring the SSDP into Krabi. Although the SSDP was still in the planning stage, land speculators heard about the project and land speculation began. Around a decade ago one *rai* (0.16 ha) of land cost around 3,000 baht. The current price is 900,000 baht per *rai* (0.16 ha). Land racketeers were quick to grab the opportunity when the SSDP was unveiled in 1989. Local capitalists in Krabi favour the SSDP as they can make fortunes out of further land sales. The rapid appreciation of land value has meant that ordinary villagers have no way of making land purchases in their own village. The village head is worried that those with land still left will sell it and move away leaving only the landless behind. This would then result in the eventual disappearance of the whole village. Already some people have moved out to other villages like Ban Khlong Muang, Ban Khlong Haeng and to Krabi town.

While some fishermen like Hem are strongly against the SSDP as they do not benefit from it, there is a great many villagers who do not have any strong opinions for or against the SSDP. Partly this is so because the SSDP is still in its initial stages and many people do not understand what the SSDP is all about or what they will get out of it. When I brought up the topic I was often confronted by statements like "*Ai ryang soutenseebod man pen arai kan nae*" (This SSDP what is it really all about.") Then there are statements like: "*rau mai khit ryang soutenseebod thaa man maa man ko maa tha mai maa ko mai maa*" (We don´t think about this Southern Seaboard thing,

if it comes it comes, if it doesn´t it doesn´t"), that reveals a certain kind of fatalism[8] about the future probably due to the fact that many people are simply overwhelmed by the rapid changes they have seen in the village and prefer to live day by day.

There is also what we might call the aesthetic problem. The tourist sites of Ao Nang and Railae Beaches are only around ten kilometres away and when the container ships arrive they can be seen in the horizon. Many people who are involved in the tourist industry are worried that tourists may not like to come to Krabi any more, if they know that an industrial site is located near their holiday destination. The people involved in tourism industry are also worried of a potential shipping accident or as one local bungalow owner in Ao Nang beach stated: "*thaa kongkarn soutenseebod samret man cha mii phon khratop nae noon somut mii rya banthuk namman khau maa leuw mii uppathiheet koet khyn singwaetloom cha sia nae noon leow ko cheng*" ("If the SSDP is completed there will be serious consequences. Suppose there is an accident involving an container ship carrying oil in the area the environment will suffer and we will go broke".)

The social costs of industrialisation are yet hard to evaluate, but there is concern that should fishing become impossible in the vicinity of the SSDP site, unskilled fishermen would lack employment. The SSDP requires educated and skilled labour. Would the local fishermen be condemned to survive from casual low paid work - if any - in an environment that may not need them, or would they have to move to big

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[8] While it is difficult to find an exact translation of fatalism in Thai, the saying *pai luey luey*, which glosses as take it day by day reveals the idea that changes and problems should be encountered as they come and deal according to each situtation. Very often when I would discuss the future with local villagers they would use the saying *pai luey luey* to indicate their thoughts about tomorrow.

cities in search of employment like many North-easterners do (cf. London 1980; Parnwell & Arghiros 1996 for discussions of the fate of a number of North-eastern communities in the face of development)?

Besides industrial developments taking place in the region, tourism is another face of the modern world-economy. Although the tourism industry in Ao Nang and Railae beaches is still in its incipient stages, for the villagers of Ban Laem Pho and other coastal villages in the vicinity of the tourist establishments, the advent of tourism has exposed them to alternative worlds. In economic terms they have clearly benefited much. Nonetheless, the benefits have mostly accrued to the middle income and wealthier families that have had the ability to tap into the tourist industry. In terms of land value, a few families who have owned land in Ao Nang or Railae beaches have made fortunes in a fortnight. A decade ago the land near Ao Nang and Railae beaches had very low commercial value. Local fishermen kept their boats on the beach and built sheds for storing fishing equipment there. The sandy soil is not suitable for most agricultural activities apart from growing coconuts. The low value attributed to land near the beach in former times was reflected in inheritance practices. For example, if a household had four children the more diligent children would receive land inland where rubber trees would grow, whereas the lazy child would receive the worthless land near the beach. Of course, when tourism started to boom in the region a decade ago the land value near the beach skyrocketed. One *rai* (0.16 ha) of beach land in Ao Nang cost 3,000 baht a decade ago whereas now its value is approximately 1,000,000 baht per *rai* (0.16 ha). The land value of the cultivable land inland has not appreciated much. The skyrocketing of beach land has led to the rapid enrichment of a few former fishing households. These families now live in large modern concrete houses, own pick-up trucks and vast plots of agricultural land where they cultivate palm oil

trees. The views of the villagers over tourism differ. The wealthier households are usually those that more readily accept tourism as they have benefited from it in financial terms or as Kasem and Fii, a couple who are own a souvenir stall near the "Fossil Shell Beach" comment: "*Ai ryang thi mi nak thong thieo khau maa thi susaan hoi man dii samrap rau phro ying mii khon maa maak rau ying khai khong dii*" ("This business of tourists coming to the Fossil Shell Beach is good for us. The more there are tourists the better it is for our sales").[10] Individuals like Kasem and Fii see the commoditisation of the marine environment in the form of selling seashells and the various souvenir items made from the produce of the sea as a means of generating income and do not see anything problematic in this. The same mode of thinking applies to the young men who have turned their boats into sightseeing boats. For them the islands and the sea are just a way of making a living. If in the past it was fish that the sea provided, then now it is the value that can be generated from tourists that the local marine environment attracts. Then there are people like Ibrahim who has tried his luck as a tourist boat operator for two years, but has given up because he felt he could not compete with some of the younger men for tourists. "*Ton nan ku chau rya phaa nan tongthieo pai this Ko Poda thi Ko Hong tham pai yuu song pii rai dai ton nan dii tae ku mai chop tham phro phut pasa angrit mai pen myan kap phuak dek leo suu phuak man mai wai ku ko loek leow ko han kap maa tham pramong*" ("In that time I used to rent my boat for tourists and take them to Ko Poda and Ko Hong (islands in the Phangnga Bay). I did this for two years and the money was good, but I did not really like it because I can't speak English like some of the younger guys and could't compete with them for the tourists. I then quit that job and returned to fishing"). The poorer fishing households seldom have interest in the tourism industry as they either do not have the necessary capital to start any souvenir business like Kasem

[10] See Case 10, Chapter 4 for details of this household.

and Fii or their boats are too old and small to be used as tour boats or they do not possess the necessary skills required in the tourist businesses. The best they can hope to benefit from tourist industry is to get a low paying casual job like Meow, a woman from Ban Laem Pho who received a job as an assistant cook in an restaurant in Ao Nang.[11]

It is premature to say much about the cultural impact of tourism in the area as the tourism industry is still in its 'infancy' so to speak.[12] Current research in tourism studies show that the social and cultural impacts of tourism on the host society are not necessarily always negative. As Wood puts it, "international tourism neither 'destroys' culture nor does it ever simply 'preserve' it. It is inevitably bound up in an on-going process of cultural invention in which 'Westernisation' is probably in most cases of lesser importance than other new directions of cultural change" (Wood 1993:67). At least for the time being the development of the tourism industry has been gradual and apart from the economic linkages, the arrival of tourists in the scene has not altered the local social life of the villagers in any major form. Much of the contact between tourists and villagers working in the tourist industry is in the form of either economic exchanges as in the case of sale of souvenirs or the renting of boats for sightseeing trips or as services in the case of waiters and waitresses, janitors and cleaning ladies. Due to the limited language abilities of these individuals, the possibilities for deeper exchanges of ideas between tourists and them are negligible. Of course there are always individuals who have given up former occupations and engaged fully in the tourist business. Nonetheless, even these individuals have done so, not necessarily because of the

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[11] See Case 7, Chapter 4 details of her household.

[12] It should be noted that the study of the cultural impact of tourism is beyond the scope of this study and therefore the subject is only discussed very briefly.

cultural influences that the tourists possibly bring along with them, but because of the economic opportunities involved. There are signs, however, that tourism may alter fishing practices. Some fishermen who have turned their fishing boats into tourist boats worry that the boats could not be used for fishing purposes any more. Or as Lek, a middle-aged fisherman from Ban Laem Pho, who had shifted from fishing to taking tourists on day trips in the phangnga Bay, pondered:"*Phuying farang, suan maak cha pen khon italii ry gereman choop nang aap daet kae phaa thi hua rya mae yaa naang khong mai choop thi khau tham yang nan rya ni mot sit pai haa plaa*". (Western women, especially Italians and Germans, like to sun bathe bare breasted at the bow of the boat, I think that mae yaa naang (referring to the guardian spirit) doesn't like such behaviour and this boat is out of luck if it is to be used for fishing).

Besides industrial developments and the rising tourist industry, which clearly mark the emergence of a new era that is disconnected from the past the commoditisation of the local marine environment in the form of commercial fishing and aquabusiness as discussed in Chapter 2 are yet further facets of the world-economy that has penetrated into the region posing challenges to the local livelihood structures. The arrival of commercial trawlers in Phangnga Bay waters in the 1980s was first viewed by villagers with curiosity, but soon they realised the problems commercial trawlers were causing to the small-scale fishermen's livelihood. In less than a decade the coastal communities found themselves entangled in the politics of development from which there is no escape. In this connection, it should be noted that, although, fish and other marine produce has always been viewed by villagers as commodities to be consumed, exchanged and traded, there is a vast degree of difference between the way villagers in the past went about doing this and the way commercial interests in the form of trawler owners and other investors go about utilising the environment.

The transformation of the local economy is an ongoing process and it is difficult to say with certainty what the local maritime communities will look like in the future. Nonetheless, judging by developments, which are taking place in other parts of Southern Thailand it is most likely that the growth of non-maritime seaboard developments will continue. During my fieldwork in Krabi, I had the opportunity to visit the province of Pattani, which is located on the shores of the Gulf of Siam.[13] In Pattani numerous fishing villages have abandoned fishing as a way of life and turned to other more lucrative occupations. This is primarily due to the depletion of fish stock in the Pattani waters and partly due to new opportunities that industrialisation has brought about in the area. Along the Pattani coast there are numerous canning factories in which villagers have found employment. Most of the fish that is canned in these factories is supplied by commercial trawlers operating in the high seas. The small catches that a few small-scale fishermen manage to fish in local waters is mostly destined for domestic consumption. Unlike in the Andaman Sea coast, there are very few tourist establishments in the Pattani area. In addition, shrimp products from the thousands of aquabusiness ventures along the coast are processed in these factories. While there are now no such factories in Krabi yet, if the aquabusiness ventures continue expanding at the current rate it is only a matter of time when the first canning factories will be set up in Krabi. This would also fit well with the projected SSDP.

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[13] It is here where Thomas Fraser did his classic study on Malay fishermen in the late 1950s (See Fraser 1966).

7.2 FROM BEING "IN BETWEEN" TO BEING "DEVELOPED"

A retired fisherman contrasts contemporary life with his youth:

Yuk ni pen yuk hanuman singwaetloom plian khon mi tae khit ryang goern thaunan goern klai pen prachau phom mai khau chai thammai man pen yang nii samai korn tha mi pho kin pho yu ko sabai mya hiu ko thing hae thi le ry pai haa puu taam rim naam ching yuu mai mii faifaa mii sya nai paa tae mai khoei ot khau ot plaa mai mii khrai maa yaeng ching plaa chaak rau ton nan rau ko yuu pen suk kap singwaetloom pen chivit thii dii

(This is the era of Hanuman. The environment has changed. These days people think only of money. Money has become God. I don't understand why it has become like this. In the old days if one had enough to eat it was enough. If you were hungry you just cast a net into the sea and it was full of fish or you could look for crabs along the shore. True, there was no electricity in the village and there were tigers in the forest, and life wasn´t easy, but you never went hungry, that´s for sure. No one came to compete for the fish. In those days we were at peace with our environment. I think it was a good life.)

A middle-aged villager comments on changes in fishing practices:

Ryang thi mi khryang samrap rya ko dii uppakorn haa plaa samai nii ko dai plian yoe samai nii chai uan dai naan maitong pai yoom myan samai pho ku tae wela dieuw kan rau tong khaengkan kap phuak uan laak rakhaa plaa baang chanit khyn maak baang chanit haa mai dai iik chivit kap le man ko yang dii ku khoei thamgarn thii myang rae khoong phuket tae mai choop garn yangnan phro man nak leuw mai dai pen tua khong tua eng

(These days the fishing equipment has developed a lot. This business of having new engines for boats is good. Also you can use a net for a long time and don´t have to dye and mend it like my father had to. Having said that, we must compete with the trawlers for fish, a problem which did not exist in the past. Some fish species have become hard to find while the price of others have gone up a lot. Still, I wouldn´t change my life as a fisherman for anything else. I used to work in the tin mines in Phuket. It was dirty work and there wasn´t the same freedom you have working in the sea.)

A village leader ruminating about life in the changing Thai society:

Chaoban thini samai nii mai sonchai nai satsanaa maak thaurai aei dek wai run thi pai tham garn taam rongraem lae nai muang man dai samphat kap chivit samai mai man au khuam khit mai khau maa nai muban aie chivit khong luklaan man cha pen yangrai ko mii tae ong alloh thi ruu thau nan

(People here are no longer interested in religion. The young people go to work in the town and in the tourist establishments and encounter a new lifestyle. They bring these new ideas back to the village and the way people think about life starts to change. What the life of our grand-children will be like...only Alloh knows that).

A souvenir stall holder reflecting about her new job:

Mya korn chan thamgarn khai plaa tae goern mai khoi dii diew nii chan roem khai khoong thi susan hoi rai dai ko maak khyn chan khit waa chivit baep nii dii diew nii chan samart syy tuu yen nai baan leukoo torathat au wai du len ton yen

(Before I used to work selling fish, but I did not make much profit. Now I sell things at the Fossil Shell Beach and my income has increased a lot. I think life has become easier. Now I have been able to buy a fridge and a TV to watch in the evenings).

A young villager positing his view on modern life:

Chivit thini dii haa garn tham gnai pii korn phom thamgarn pen yaam thi ao nang dai goern dyan song phan haaroi diew nii chuai phikhoei haa plaa tae kamlang khit waa yaak chapai thamgarn pen yaa thi ao nang iik koon cha taenggarn lae pluuk ban nai anakhot khong cha haa plaa kau samrap khai kae raan aharn thi krabi phro hen waa dai rakhaa dii thaa tham nan mai dai ko roem that rya thua phaa nakthong thiew taam ko

(Life here is good. It is easy to find work. Last year I worked as a night guard in Ao Nang. I received 2,500 baht per month. Nowadays I help my brother-in-law fish, but I am thinking of going back to work in Ao Nang. I want to gain some experience before marrying and settling down. In the future I suppose I could catch fish and my wife could sell them to the restaurants in Krabi as I hear that they fetch a good price there. If this doesn't work, I could always take tourists to the islands and make a living from that.)

The above quotations from Ban Ko Kwang and Ban Laem Pho villagers all reflect different views on the changes that the rural society is undergoing. The old man is perplexed by the changes around him and reminisces the old times when life was less complicated with the problems that integration into market economy invariably entails. His notion of a good life is having enough to eat and living in peace with the environment. The village leader accepts that change is inevitable and ponders that it is difficult to know the direction that future developments will lead to. In contrast, the middle-aged fisherman is pleased with the new developments and improvements in technology that have made his work easier. He acknowledges the problems that changes have brought, but is nonetheless reluctant to give up fishing as a way of life. The souvenir stall holder is happy with the possibilities of making a better income from her new job and is pleased with the consumer goods money can buy. The young man is ready to embrace the opportunities that development have brought into the region. He is still interested in fishing, but thinks that, if there is no future in fishing, the non-maritime seaboard developments will offer possibilities for a livelihood.

All five brief accounts reflect the notion of the village society undergoing a transition process in which the villagers are "in between" of traditional ways of making a living and the prospects that modernity has brought about. Being "in between" has both physical and social dimensions. As communities where people lead their daily lives Ban Ko Kwang and Ban Laem Pho are surrounded by developments taking place in the sea, i.e. in the form of the expansion of commercial fishing, and in the land, i.e. in the form of the non-maritime seaboard developments. Trawlers encroach on village fishing grounds and land is being leased and bought for shrimp farms, tourist establishments and industrial developments. Within midst of these developments individual villagers negotiate the

various challenges and options that they confront. The choice whether to pursue one or another option depends upon the social, economic and psychological constraints of each individual household and yet also upon the local resource endowment and social relations of production which shape and constrain strategies. As the various case studies presented in Chapter 5 pointed out individuals have a range of options available rather than only one strategy. Strategies vary according to the numbers, ages, education and skill levels of the individuals. In addition the nature of family links with the outside world affects the chosen strategies.

Being "in between" is very much about the life worlds of villagers in contemporary Southern Thai maritime communities overlapping with both tradition and modernity in the sense that neither one really has taken precedence over the other. [14] Yet at the same time, the pressures of modernity are felt increasingly in village society through exposure to alternative worlds. Accordingly, the modernity aspect continues to hold increasing sway in the life worlds of villagers. Many young men who work as crew members on trawlers fishing in the high seas have the opportunity to visit ports in far away places and learn about the world around them.[15] In

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[14] By tradition I do not imply unchanged values from time immemorial. Rather, the term tradition is simply meant to imply a mode of living before the changes that the non-maritime seaboard developments described in the thesis brought to the region.

[15] A great number of males under the age of 30 have worked for a while on trawlers that operate from the harbours of Phuket, Trang, Songhkla and Pattani. The time spent as a crew member varies form individual to individual, but generally speaking the average time is around two fishing seasons. The average age of the boys working on the trawlers varies from 17 to 20 years. Working on trawlers is seen as a time of finding life experience (haa prasoppakarn). The curious thing is that villagers go to work on trawlers that operate far away from Phangnga Bay and therefore they are by no means involved in the problems that trawlers cause in local waters. Nonetheless, with increasing social

similar vein, both young men and women who work in the tourist establishments are exposed to the life style tourists live. This is also the case with the tourist boat operators. All villagers have visited the provincial capital, Krabi town, and quite a few have been to the other larger cities in the region such as Songhkla and Hat Yai. As a result they are being exposed to the wider world around them. Besides such contacts with the outside world, the mass media in the form of television and radio expose the villagers to the world of consumption goods and many villagers want to emulate the middle class lifestyles they see in television soap operas and shows.

The villagers, like Thais in general, value good form and appearance and are increasingly oriented towards material possession (cf. Komin 1991:188; Kasian 1996). This is especially true with both sexes of the younger generation. Designer labels and brand names are sought after as they bring prestige to the owner. The more the young villager has modern gadgets to show to their peers the more that individual feels having thus succeeded in embracing modernity. In their world view being *thansamai*, which glosses as following one's time, equates with being developed.

Another term which is constantly used by the state representatives, environmental activists and the villagers themselves in the discourse concerning changes in the livelihood structures and environment is the term *karn pattana*, which glosses over as development. While the environmentalists and a number of the villagers who feel overwhelmed by the forces of change problematise the concept of development, for the state representatives and the majority of villagers, who have engaged the opportunities the non-

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differentiation, working as crew members on trawlers is more and more an job for the poor.

maritime seaboard developments have brought, development is something desirable that will make life easier.

The shifts in the sources and patterns of livelihood as a result of the ongoing diversification of the local economy in Southern Thai maritime society will entail the current state of being "in between" to be gradually subsumed by "being developed".

8. CONCLUSIONS

This thesis is an ethnographic account of contemporary Southern Thai maritime society cast within the specific context of the larger political-economic system. The thesis focuses on understanding the local level through political and economic developments that are taking place in contemporary Thai society. When I first began to do fieldwork in the villages of Ban Ko Kwang and Ban Laem Pho I was under the impression that all the village households were engaged in fishing as the main source of income. This impression was also supported by the fact that the villages were referred to by outsiders and a great majority of the villagers themselves as *muban chao pramong*, which glosses over as "fishing villages". The image of the villages consisting of fishermen was reinforced by the numerous fishing boats found along the beach and the nets drying on bamboo poles in front of houses. People in Krabi town knew the villages for the marine produce that was sold in the market. All this is true and fishing is still the most important source of income for over a half of the village population. However, in the course of my fieldwork it became apparent that there were a host of other income-generating activities that villagers were engaged. Therefore, the characterisation of the villages as fishing villages is not entirely correct.

The Andaman Sea region of Southern Thailand has been involved in the rapid transformation of the regional economy for over a decade and the repercussions of this transformation are very much visible in the coastal villages of Phangnga Bay. Part of this transformation has meant that fishing no longer is the sole source of income for village households, but that there are a host of other activities that compete with fishing and provide better opportunities for individuals who are apt to engage in the new activities. This thesis has explored the various income-generating activities that villagers engage in

and by doing so illustrated the transformation of the livelihood structure that the maritime communities along the Andaman Sea are undergoing. Ban Laem Pho and Ban Ko Kwang are by no means the `typical Southern Thai villages', if such a category even exists, however, the shifts in the sources and patterns of livelihood that are taking place in these two villages are a graphic, at times almost grotesque, illustration of a social process occurring throughout the Southern Thai coast.

Although there exist studies on social change in Thai society, the anthropological literature on **Southern Thailand,** and especially works on development issues and the processes of social change about the region, is scanty. In this respect this thesis is an attempt to fill this gap in the field of Thai studies.[16] At a more general level it is also a contribution to the knowledge of how the local people's livelihoods and environment in developing societies are shaped by the challenges posed by the world-economy.

In my view, a significant facet of the workings of the modern capitalist world-economy is that decisions made far away in one part of the world have important and sometimes irreversible ramifications upon the life of people in another part. Another facet is the rapidity of changes. Decisions that are made today are often implemented tomorrow. For example, as a result of Thailand´s policy of investing in tourism, Krabi is being promoted as a prime destination for international tourists. Households in villages like Ban Laem Pho, which a few years ago relied solely on fishing for a living, today find themselves involved in the manufacture of souvenirs for

[16] Having participated in two major Thai Studies conferences, in 1993 in London and in 1996 in Chiang Mai, I can attest to the fact that in both conferences in all the numerous panels ranging from history to anthropology panels there were only three papers dealing with Southern Thailand, including my own presentation.

tourists who come each year to the beaches in increasing numbers. Another example of parallel development is the decision by the Thai government, as a result of Thailand's involvement in various global and regional schemes, to develop the vicinity of Ban Ko Kwang into an industrial site resulting in drastic changes in the local marine environment. The households that only a few years ago lived on fishing and rice cultivation in a village wituout even a dirt access road, today find themselves surrounded by the construction of piers for container ships, a maze of oil pipelines, and ten-wheel trucks speeding up and down the newly constructed road that runs through the village.

If we think of the historical changes in the Phangnga Bay economy, the following observations can be drawn. There has been an ongoing diversification of local livelihoods characterised by a shift from a semi-subsistence economy, based on fishing and exchange of marine produce for rice and other consumption goods, to a market economy, in which individuals are confronted with a variety of options to pursue in order to make a living depending on one level on the social, economic and psychological constraints of individual households and on another level the local resource endowment and social relations of production which shape and constrain strategies.

Since the beginning of the 20th century until the late 1950s, the local economy was more or less exclusively based on fishing. Although being involved in a network of trade with inland communities, the maritime villages were relatively self-reliant for their livelihood. The region was sparsely populated and the coastal resources were abundant.

An **intensification** in the use of coastal resources followed the technological changes in fishing. Motorisation of boats and the introduction of nylon nets started in the last quarter

of the 1960s. The economy was still subsistence oriented, but the market economy started to make inroads into village life. Concomitantly, the livelihood strategies, although still primarily focused on small-scale fishing, started to diversify as agricultural practices involving the growing of rubber plantations were introduced from Malaysia to the region.

From the late 1960s to the late 1970s the use of coastal resources further intensified. Rice was still cultivated for household use as before, but fish was **primarily** caught for the **market.** The introduction of ice in distribution and sale of fish meant that the catch could be transported fresh to the local markets and consumers. Being able to sell fresh fish instead of dried fish brought more cash to the primary producers. In addition, this meant that the contact between the village and the town increased immensely. Young men from fishing households started to work as crew members on trawlers that ventured into the high seas. Rubber tapping was in full swing and those with the available capital invested in rubber production. The first signs of resource depletion were experienced as some valuable fish species became harder to find.

The latest phase of development started in the early 1980s. This has been an era of **rapid development** and involved further intensification of the use of the local resource base. Non-maritime seaboard developments in the form of aquabusiness, tourism and industrial developments has meant the **integration** of the local economy with the modern capitalist world-economy. At the household level there has been a **diversification** in the strategies of securing a livelihood. Andaman Sea coast is no longer an isolated area, rather it is very much caught up in the developments that are taking place in the Southeast Asian world, namely rapid incorporation of the region into integral parts of the world-economy resulting in subsequent transformations of rural society. With all the changes in the

local environment and in people's livelihoods, it has become apparent that the communities of Ban Laem Pho and Ban Ko Kwang have been ushered into a transitional situation of no longer being just small-scale fishing communities and at the same time not quite having made the leap necessary to become communities relying solely on agrobusiness and industrial production. Most of the changes in the environment and livelihood structure have taken place within a couple of decades and the process is still going on. Such a state of affairs has put the villagers in a somewhat uneasy position: on one hand, embracing a life style characterised by a fishing way of life and everything this entails, and on the other hand, embracing the changes and opportunities that modernity has brought about. On one hand, the local marine environment continues to be a source of life for villagers and, on the other hand, due to pressures of the commoditisation of the natural resources of the region, many villagers also want to take advantage of the opportunities such commoditisation brings. I refer to this uneasy coexistence of the traditional way of life and forces of modernity as being "in between". Being "in between" has both physical and social dimensions. As communities where people lead their daily lives, Ban Ko Kwang and Ban Laem Pho are surrounded by developments taking place in the sea, i.e. the expansion of commercial fishing, and in the land, i.e. the non-maritime seaboard developments. Trawlers encroach on village fishing grounds and land is being leased and bought for shrimp farms, tourist establishments and industrial developments. Within the midst of these developments individual villagers negotiate the various challenges and options that they confront. Put it in another way, they create their own histories, but within political and economic processes guided largely by non-local forces.

From the discussions of the social and economic transformations of Southern Thai maritime society in this thesis, we can better understand the development and growing importance of the non-local in village life. The local has become more closely integrated with non-local mechanisms and processes. The world of the village expands from the immediate to the regional contexts and beyond.

The social and economic transformations of Southern Thai maritime society is by no means unique to Thailand or even to other countries in the region. Parallel developments of industrialisation, commoditisation of the environment, and diversification of livelihood structures, can no doubt be observed in other places in Southeast Asia. Nonetheless, what makes places like Ban Laem Pho and Ban Ko Kwang special is the special relationship between livelihoods and environment. The exceptional diversity of the physical coastal environment has allowed the rise of diversity in resource use, which in turn has given rise to the diversity in local livelihood structures. The diversity in local livelihood structures, however, is very much dependent on the continuing existence of a physical environment that can remain undamaged by the various ongoing developments.[17] It appears that in the case of the Andaman Sea region history has arrived at a juncture where development and preservation and livelihoods and environment have become irrevocably intertwined. The future challenge therefore is how to balance development and preservation needs.

[17] It takes only one large shipping accident near the gypsum pier in Ban Ko Kwang or in Phangnga Bay to spoil the local fishing grounds, mangrove swamps, beaches and coral reefs for years to come, thus endangering the emerging tourist industry and the livelihoods of the remaining small-scale fishermen.

There are a number of lessons that can be learned from the case of Southern Thai maritime villages, which have wider implications in terms of understanding social and economic transformations. Firstly, the social and economic transformation of local society is not necessarily a destructive process, in which local livelihood structures become completely subsumed under non-local processes. Although some traditional economic practices are often irrevocably altered, local society is able to adapt sometimes with amazing ease to changing social and economic transformations resulting in alternative economic practices. Secondly, social and economic transformations should be viewed as a process, in which there may be one main trajectory of development, but within this many sub-plots that vary, creating diversity in local livelihood structures as a result. With a view from afar, social and economic transformations everywhere appear uniform and guided by similar non-local mechanisms that local society can influence only in a very limited way. However, a closer look reveals a plethora of new economic practices that vary from locality to locality. Thirdly, understanding social and economic transformation is often difficult because of its complex nature. This complexity derives from the fact that social and economic transformations are very much about encounters with modernity, which is multi-faceted and contains seeming incommensurabilities. By using localising strategies, that is investigating the process of social and economic transformation through the experiences of real individuals using qualitative anthropological methodologies, the complex and distant nature of social and economic transformations begins to break down and issues are given a human face. As a result it is possible to trace patterns of change that constitute the social and economic transformations.

APPENDICES

APPENDIX I

CONTEMPORARY FISHING TECHNOLOGY

Because productive technology is important in the small-scale fishing operations in Phangnga Bay and because fishermen like to talk and exchange views about their equipment it is appropriate to dwell at some length on these topics in the following sections.

BET AND *BET RAW*

A very popular method of fishing is handlining. There are two kinds of line-hooks used in handlining. First, *bet* is a commonly used line-hook. One *bet* has around five hooks attached to a thirty meters long line. The hooks are huge ten centimetres long iron hooks placed a few meters apart on the line. The *bet* is a cheap investment costing only 150 baht each. The *bet* is lowered into water from a boat with live baits of squid or small fish attached to it. The bet is used to catch larger fish like barracuda, sharks, jacks, queenfish, tuna and mackerel. Handlining with the *bet* requires only one person and therefore using the bet is an individual occupation. Fishermen leave early in the morning to fish with the *bet* and return usually in the early afternoon. The *bet* is lowered into water and then the wait for the fish begins. Also, the *bet* can be trolled. A light tug on the line tells the fisherman the fish has taken the bait. Handlining with the bet is done in relatively deep water. To sit patiently in a great expanse of ocean requires great patience. It is not the most effective method of fishing and requires experience and skill in order to yield a catch.

Bet raw is another handlining method. However, unlike the simple *bet*, *bet raw* is more complicated to operate. The average *bet raw* has four *tap* or series of hooks. In one *tap*, there are 200 hundred *taa* or small two centimetre long hooks lined together. Therefore, one *bet raw* has 800 hooks altogether. One *tap* costs 500 baht, so the entire *bet raw* requires an investment of 2,000 baht. However, like the common *bet*, it can be used until the hooks rust away, giving around four to five years of service. The *bet raw* is used at night time. At about 2 a.m. the fisherman leaves his home. He returns from the trip at about 7 a.m. Usually two persons are needed for the operation. One person controls two *tap* at a time. *Bet raw* uses small pieces of fish for bait (*jya*). One *bet raw* requires up to eight kilograms of bait per one fishing trip. The hooks are lowered to the ocean bottom and are left there for an hour at a time after which they are pulled on board and the catch is inspected and fresh baits are put on the hooks. The *bet raw* does not require as deep water as the common *bet*, about ten meters being a sufficient depth for operations. *Bet raw* is operated near coral reefs and rocky places where fish congregate at night time.

SAI MYK

Sai means a trap and *myk* means squid. One operator has on the average fifteen *sai myk*. The trap is of almost rectangular shape with a flat bottom and a arc-like shaped top, closed at one end with a narrow entrance at the other. Here there are bamboo spikes to prevent the catch from escaping. The wood needed for construction is mostly bamboo and rattan and is easily found in local forests. Fishing net of approximately 1 m x 2 m is attached to each trap. The net (*uan*) costs 110 baht per kilogram and is the most expensive investment. Other material include rope at 40 baht per kilogram for tying and foam for floats at 70 baht for ten traps. Palm fronds are placed inside the trap, because the squid likes to enter there

to lay eggs in their shade. The price of the average trap is around 30 baht. It must be brought ashore to dry, be repaired and cleaned once a month. The working life of a squid trap is around six months or one season. The trap is placed on the ocean bottom on a sandy surface, often near rocks or the coral reef or it can be placed in relatively shallow water, ranging from two to fifteen meters. The trap is checked for squid every morning at sunrise and at sunset. Some fishermen prefer to check theirs only in the morning. Occasionally a few fish enter the trap, but mostly squid are caught. The catch varies from day to day, but I have observed that the average catch per trap is around four to five squid. The squid are divided into three classes according to size. The smallest size fetches 30 baht per kilogram, the middle size 60 baht per kilogram and the largest size 65 baht per kilogram in the Krabi market. The average round for checking the traps lasts around an hour. The trap is brought onto the surface by pulling on the rope and the catch is picked by hand and transferred to the boat after which the trap is lowered back in the water. Although it is possible to operate the traps alone, most fishermen check the traps with a companion who is often the son. Due to its cheapness, the *sai myk* has become very popular fishing equipment among local fishermen. Also, the demand for squid has risen tremendously in the past few years. Interestingly enough, it is not a local invention. According to the local fishermen, somebody brought the idea from Prachuab Khirikhan province in the Gulf of Siam a decade ago. The idea caught on very fast and has become popular throughout the Phangnga Bay region.

LOOM

Loom is a small rectangular portable trap used for catching small fish near coral reefs. It is around one metre long and fifty centimetres high. It has wooden frames and fishing net is used for walls. There is a single entrance at one end where fish can enter but not exit. One *loom* costs around 20 baht to

make, the major cost being the net at 110 baht per kilogram. The wood for the frames is gathered from nearby forests. An average operator will have approximately 30 *loom*. It is placed in water for a month at a time and must be brought ashore to be repaired and cleaned once a month. Again like the *sai myk*, the *loom* can be used only after the monsoon season. An average *loom* lasts for a couple of fishing seasons. The trap is placed in shallow areas near coral reefs where fish are known to migrate diurnally or with the tides. Baits of small fish are placed inside the traps to attract larger fish. Like the *sai myk*, the *loom* is pulled to surface to be emptied.

UAN LOI, UAN PU, UAN KUNG

Uan loi is the common nylon drift gill net. *Uan* means net and *loi* means to float. It is around 200 meters long and 8 meters high. The mesh is five centimetres and is really too small in the opinion of many fishermen as it traps a variety of tiny fish. Each drift gill net costs around 1,000 baht. It is the cheapest net around. Usually one fisherman will own one gill net each. When a fisherman thinks he needs a new net, he discusses the matter with his wife who then decides whether they can afford a new net. Because it is made of nylon it is strong and lasts around four to five years or four to five fishing seasons. The problem with the *uan loi* is that it rips very easily if caught in rocks or coral. Most of the owners of the nets do the necessary mending themselves. Nylon thread must be bought for this at thirty baht per kilogram.

The *uan loi* is set out after the monsoon season in November and is used until the beginning of the new monsoon season in May. It is set out and checked from a boat and the operation takes around an hour. Two persons are needed in this operation. One lays out the net while the other rows the boat slowly. When the net is checked the same pattern occurs. The net is left to the sea for a week and is then brought on shore for repairs before being set back in the sea again. When

brought ashore the nets are placed to dry on bamboo racks and cleaned of possible seaweed and other unwanted debris. After drying it can be mended and then it is ready to be used again. The net can be set out almost anywhere where the water is deep enough; however, as we shall later see the fishermen have specific places where they fish. Rocky bottoms are avoided as the net will get stuck and rip.

Uan kung is a shrimp gill net which is a very long and low net with a very fine mesh. Its length is around five hundred metres and one and a half metre high. The size of the mesh measures only one centimetre. *Uan kung* is the most expensive kind of net costing around 2,500 baht each. Therefore, often two or three fishermen share one shrimp gill net. It can be used only for a couple of months at a time when there is shrimp available and lasts around two to three seasons before getting ripped beyond repair. This is because the mesh is so small and the thread is not very strong and rips easily. It is also very difficult to mend. Due to its high cost few fishermen can afford to buy one. The *uan kung* is laid out near the shore in November when shrimp appear in large quantities. A boat is used to lay the net and two persons stand in the water helping lay it out. After it has been laid out it is left for a couple of hours and before the tide starts to change again it is pulled ashore. Often in the pulling operation five to six people come to help as the net can get rather heavy if the catch is good. *Uan kung* is a more recent arrival on the scene than the *uan loi*, although the fishermen were not able to recall when exactly it started to be used. Most likely *uan kung* has been used for about a decade in the area.

Uan pu is a crab gill net also made of nylon. It also measures around one hundred meters and one meter in height. It is also relatively expensive net, costing around 1,500 baht. The *uan pu* lasts for only one season, because it gets badly ripped by the crabs that cling on the thread very strongly with their

pincers. An interesting feature of the crab gill net is that it is built in two layers. The outer layer has mesh which is fifteen centimetres large and the inner layer is ten centimetres. This is because crabs get better entangled in the two layers of net than in one layer. The net is set in water some five hundred metres from the shore line. It hangs vertically in the water by means of floats at the top and weights at the bottom. It is lowered to the sea bottom and left there for a couple of weeks at a time. It is checked for crabs each day during this time. The net is pulled aboard the boat and crabs are taken off the net. After this the net is lowered back to the bottom. Only two persons are needed to operate it. One person pulls the net aboard the boat, while the other helps put the net into a orderly pile. It must be carefully placed in the boat, because otherwise it will get easily entangled in a hopeless mess. The person placing the net in a orderly pile also disentangles the catch from the net. Often the two change jobs after a while. Pulling the net aboard the boat is a tiresome job as the waves rock the boat and the net is heavy. The whole operation takes around two hours if the catch is good. This is because disentangling crabs from the net is a very time consuming job as they cling to the thread of the net with their pincers and their legs get tangled all over the place. The net is taken ashore every two weeks to dry and to be cleaned from possible seaweed. It is also a very difficult net to repair. When the crabs are disentangled the net rips easily and the largest holes must be repaired.

PO

Po is a large sedentary device built to trap fish on receding tides. It is built in relatively shallow water a few hundred metres from the shore line. The depth of the water in the site usually ranges from a few meters to around ten metres.

The *po* is built in a V shape in an area where the tide recedes. The orientation of the device is important and in order for it to be effective the fishermen must know the regular pathways of the fish as they leave the reef flat for deeper water as the tide falls.

The *po* contains two ´heart´ shaped ´rooms´ each smaller than the other with an opening at the end. The bigger one measures around ten metres in width and eight metres in length. This is called the *hong luang* or the central room. The smaller one measures four metres in width and three in length. This is called *kanchang* or the inner room. The top end of the central room leads to the inner room which is open at its bottom end. At the end of the inner room there is a small entrance leading to a large trap which is similar to a *loom* described in an earlier section. This trap is one and a half metres high, three metres in length and two metres in width. Wooden frames support the structure which is covered with net. There is a door at one side, where a person can enter to gather the catch. Above the loom is a structure made of bamboo poles some four meters above the surface. Here there is a wooden pole around which a rope is attached. The pole is used as a winch to lift the loom out of the water. Two persons must operate the winch while a third person helps from the boat below. At the bottom end of the central room there is a central wing that extends around 100 metres towards the shore. This is called *pik klang*. At each side of the central wing there is a side wing or *pik hang* measuring over 25 metres. The purpose of these wings is to lead the fish into the trap. With the receding tide the fish are driven towards the trap at the end of the *po*. The wings and the rooms are constructed by driving bamboo stakes into the ground at one metre intervals. The stake usually rises above the surface around three metres. The stakes are tied to each other with rope and in between the stakes a net is attached. This net extends from the ocean bottom one metre above the surface. Seaweed grows on the bamboo poles and fish like to feed on it.

The *po* is checked for fish every three days. This is called *pai po*. The entire trip lasts around four hours. The idea is to go by boat to the site and enter the device at the end facing the shore, that is, near the central wing. At this point two persons must enter the water and chase the fish with a net towards the inner parts of the *po* and into the trap as described above.

The construction of a *po* requires a considerable investment and therefore only a few wealthy fishing households own a *po*. The average cost of a *po* with all the materials is approximately 20,000 baht. Because, of its high cost, a *po* is usually constructed by a group of fishermen who share the expenses, labour involved and the potential catch. Women play an important part in this. They act as the financial managers of the *po* on behalf of their husbands. Depending on the number of shareholders involved, the costs and proceeds are usually shared in proportion of the investment. For example, in Ban Ko Kwang three households had decided to construct a *po*. Household A put in 11,000 baht, household B 6,500 baht and household C 2,500 baht. The important point here was that all the women involved were sisters whose husbands constructed the *po* together. Whatever fish was caught was split in proportion to the investment. Household A owned most of the shares and also had the major say in how the catches were divided.

It takes around two weeks to construct. Also, the *po* requires a considerable amount of maintenance. It lasts for one season only, after which some parts like the bamboo stakes that have become rotten and sections of net that have ripped must be replaced before the start of a new season. After a few years cockles eat through the bamboo stakes and the nets get badly ripped and the *po* must be abandoned and a new one must be constructed.

UAN RUN

Uan run or the push net is perhaps the latest invention in fishing technology in the region. It is also outlawed because it is an environmentally harmful method of fishing. Basically, it is a simple invention. A piece of net is attached between two bamboo poles that are attached to the front of the boat. The net extends in a V-shape from the front of the boat towards the sea. The device ranges from two to ten metres depending on the size of the boat. It is a relatively cheap invention as the bamboo poles are found in local forests and only the net must be bought at 110 baht a kilogram.

Uan run is used by lowering it into the water so that one end is still attached to the boat. The boat is driven forward and anything that comes in front of the device is scooped into the net. Because it is outlawed, the uan run is operated at night. The boat is driven around until the net is heavy with fish, then the net is pulled up and the catch is put on the boat after which the net is lowered back into the water for a new round. The problem with the *uan run* is that the size of the mesh of the net is very fine and all species of fish and shrimp are indiscriminately caught in the net. The use of *uan run* started in Ban Laem Sak, Amphoe Ao Luk, which is located in northern Krabi. According to some fishermen it is an efficient way of fishing, but due to its environmental destructiveness it has caused a lot of problem not only in declining fish stocks, but it has created dissension among fishermen as many resent those using the *uan run*.

SUBSISTENCE FISHING TECHNIQUES

Other fishing activities are carried out solely as a supplement to the villager's diet. The mangrove swamp near Ban Laem Pho provides a wealth of high-protein foods for domestic consumption. Especially during the monsoon season, when the seas are rough, men, women and children go to the swamp in search of oysters, mussels, clams and crabs.

Also, the exposed reef on low tide is a source of a variety of clams, shells and fish. Beche-de-mer or Black sea cucumbers (*ping thale*) are collected and dried in the sun before being eaten.

Additional dietary supplements are obtained through subsistence fishing and gathering. The *hae* is a small cast net measuring a couple of meters in circumference. It has a fine mesh and is used for catching schools of little fish that swim near the shore. Its cost ranges between 150 to 300 baht depending on quality. It can be used for years on end providing it is washed and dried after each use. When a man sees a school of fish swimming near the shore he runs in to the water and casts the net over the fish. The net is then pulled ashore and the catch is gathered into a bucket.

Another method of subsistence fishing is using the *sawing*, which is a kind of a dip-net. It measures around one meter in circumference and is attached to a bamboo pole. The *sawing* is made from old fishing net. The sawing is used to scoop fish that are found in pools of water in the reef on low tide. It is, also used to catch crabs at night time. The catcher wades in water with a torch in one hand and the sawing in the other. When he sees a crab running in the bottom he scoops it into the sawing and places the crab into the bucket he carries on his shoulder. Catching crabs in this way is a popular activity among young men and women during the full moon when the crabs are easy to see.

The hand spear or *hoob* is a method of subsistence fishing which is used to chase and spear fish in shallow water on exposed reefs during low tide. A metal tip with a double fork is attached to a bamboo pole. The *hoob* is popular with young boys who like to chase fish in their spare time. Adult fishermen consider using a hand spear to be more fun (*sanuk*) than really a productive activity. The *sanuk*, according to those who use the *hoob* is the thrill of the chase as one can see the fish trying to swim away and hide under coral and rocks.

Another interesting method of subsistence fishing is using a bark from a tree called *sau dam* that contains poison used to stun fish. The bark of *sau dam* is spread in shallow water and apparently poison is released into the water that temporarily stuns fish and they float on surface gasping for air where they are scooped up with a *sawing*. Its effect lasts for approximately fifteen minutes after which the poison is no longer dangerous for the fish.

Some fishermen like to go out to the sea in the evening at sunset to catch squid. This is done by trolling a line with a plastic bait resembling a small fish attached to a hook at one end. Two lines are tied to the toes because the hands are needed for rowing the boat. A tug in the toe tells that a squid has caught the bait. This activity is popular among retired fishermen who want to do some fishing but do not have the strength to go out to do other kinds of fishing that requires more strength.

A further subsistence fishing method used by old women who stand in water up to their knees near the beach and fish with a bamboo pole and a small hook with a live bait attached to the hook. The catch consists mainly of small fish and bottom dwelling fish like flounder (*pla lin ma*), Oriental sole (*pla seek deo*) and Indian halibut (*pla lin kwai*) and Tongue sole (*pla yot muang*).

APPENDIX II

THE FIFTEEN MOST COMMON SPECIES OF FISH CAUGHT IN PHANGNGA BAY WITH DATA ON ENGLISH NAME, SCIENTIFIC NAME, LOCAL THAI NAME, SIZE, PREDOMINANT METHOD OF CATCHING, AVAILABILITY AND HABITAT

Whipfin Mojarra, *(Gerres filamentosus)*, *Dookmaakkradong*, 11-22 cm, Seine net, All year, Sand-bottom
Lattice monocle bream, *(Scolopsis taeniopterus)*, *Saikhaohusidaeng* 15-25 cm, Line-hook, All year, Coral reef
Starry emperor, *(Lethrinus nebulosus)*, *Hmusifaa*, 20-65 cm, Line-hook, All year, Coral reef
Longfin cavalla, *(Carangoides ciliarius)*, *Mongsae*, 20-65 cm, Line-hook, All year, Free-swimming
Spotted golden goatfish, *(Parupeneus heptacanthus)*, *Phatonglyang*, 17-28 cm, Seine net, All year, Coral reef
Russell's snapper, *(Lutjanus russelli)*, *Kaphongpaankhaanlai*, 16-42 cm, Line-hook, All year, Coral reef
Diamond-scaled grey mullet, *(Liza vaigiensis)*, *Kraboktontai*, 19-40 cm, Seine net, November-March, Free-swimming
Bluespot grey mullet, *(Valamugil seheli)*, *Krabokpiiklyang*, 15-40 cm, seine net, November-March, Free-swimming
Hardtail scad, *(Megalaspis cordyla)*, *Khaengkai*, 25-80 cm, line-hook, January-April, Free-swimming
Banded crevalle, *(Atule mate)*, *Haangkhaengbang*, 13-30 cm, Seine net, All Year, Coral Reef
Banana sailfish, *(Istiophorus gladius)*, *Kathongkluay*, 80-240 cm, Line-hook, November-March, Free-swimming
Spotted halfbeak, *(Hemirhamphus far)*, *Tabtau*, 25-40 cm, Seine net, All Year, Coral Reef
Striped sea catfish, *(Plotosus anguillaris)*, *Dukthale*, 19-35 cm, Line-hook, All year, sand-bottom
Imbricated stingray, *(Dasyatis imbricatus)*, *Kaben*, 20-80 cm, Line-hook, Al Year, Sand-bottom
Streaked spinefoot, *(Siganus javus)*, *Slidhinjaek*, 15-35 cm, Trap, All Year, Coral reef
Fourfinger threadfin, *(Eleutheronema tetradactylum)*, *Kurausisen*, 5-140 cm, Seine net, November-March, Free -swimming

APPENDIX III

COMMON MOLLUSCS AND CRUSTACEANS CAUGHT IN PHANGNGA BAY WITH DATA ON ENGLISH NAME, SCIENTIFIC NAME, LOCAL THAI NAME AND SIZE

Rainbow cuttlefish, *(Sepia pharaonis)*, *Mykkradong*, 10-30cm
Soft cuttlefish, *(Sepioteuthis lessoniana) Mykhom*, 15-35 cm
Splendid squid, *(Loligo formosana)*, *Mykkluay*, 20-35 cm

Cockle, *(Arca granulosa)*, *Hoykhruang*, 2.5-5 cm
Undulated surf clam, *(Paphia undulata)*, *Hoylay*, 4-8 cm
Horse mussel, *(Musculus senhousia)*, *Hoykraphong*, 2.5-5 cm
Wedge shell, *(Donax faba)*, *Hoysiab*, 1.5-4 cm
Wing shell, *(Strombus canarium)*, *Hoychaktin*, 5-5.5 cm
Blothched melon shell, *(Melo mela)*, *Hoylamphong*, 8-25 cm
Penquin wing oyster, *(Pteria penquin)*, *Hoymangrom*, 7-25 cm
Green mussel, *(Perma viridis)*, *Hoymaengphu*, 4-20 cm
Ridged venus clam, *(Tapes turgidus)*, *Hoykrapuk*, 4-8 cm
Radiated scallop, *(Amusium pleuronectes)*, *Hoyphad*, 7-15 cm

Blue swimming crab, *(Portunus pelagicus)*, *Puumaa*, 9-20 cm
Spiny rock crab, *(Thalamita crenata)*, *Puuhin*, 5-8 cm
Fiddler crab, *(Uca vocanus)*, *Puukamdaan*, 2-4 cm
Hairy leg mountain crab, *(Cardiosoma carnifex)*, *Puukai*, 8-15 cm
Serrated mud crab, *(Scylia serrata)*, *Puuthale*, 10-20 cm
Brick-red box crab, *(Calappa philargius)*, *Puurysi*, 4-12 cm
Hairy rock crab, *(Eriphia sebana)*, *Puubaitaadam*, 3-7 cm
Mangrove crab, *(Sesarma mederi)*, *Puusamae*, 3-7 cm
Triangular-tail horseshoe crab, *(Tachypleus gigas)*, *Mangdaahaangliam*, 20-40 cm
Three-spotted swimming crab, *(Portunus sanguinolentus)*, *Puudaw*, 10-18 cm

Common snapping shrimp, *(Alpheaus euphrosyne)*, *Khoei*, 3-5 cm
Mantis shrimp, *(Oratisquilla nepa)*, *Kungtakkataenkhieu*, 15-30 cm
Giant tiger prawn, *(Penaeus monodon)*, *Kungkulaadam*, 11-33 cm
Green tiger prawn, *(Penaeus semisulcatus)*, *Kunglay*, 10-23 cm

Yellow-ring spiny lobster, *(Panulirus ornatus)*, *Kungmangkoonhlyang*, 20-40 cm
Painted spiny lobster, *(Panulirus vesicolor)*, *Kungmangkoonhuakhieu*, 20-35 cm

Black sea cucumber[1], *(Holothuria atra)*, *Pingthale*, 20-40 cm

Blue-spotted sea urchin, *(Diadema setosun)*, *Mengthalejudfaa*, 7-12 cm

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[1] The sea cucumber is renowned as an aphrodisiac among the Chinese (cf. Davidson 1976:193).

APPENDIX IV

THE MOST COMMON SPECIES OF CORAL FISH SOLD AS AQUARIUM FISH

Scorpion fish (*Pterois volitan*) *Pla malangpong*
Lionfish (*Pterois volitans*) *Pla singtoo*
Royal Gramma (*Gramma loreta*) *Pla tin*
Moorish Idol *(Zanclus corautus*) *Pla chud faa*
Blue Ring Angelfish *(Pomocanthus annularis*) *Pla sin samut*
Orange Butterflyfish (*Chaetodon lunula*) *Pla phisya som*
Four Eye Butterflyfish (*Chaetodon capistratus*) *Pla phisya*
Long-nosed Butterflyfish (*Chelmon rostratus*) *Pla phisya*
Clown Anemonefish *(Amphriprion percus) Pla dok le*

The information in Appendices 2, 3 and 4 is based on interviews using Rapid Rural Appraisal (RRA) methodology and observations throughout the course of fieldwork. I used small cards on which I had glued pictures of fish from Thailand's Marine Fish Inventory and showed these to a group of fishermen and asked them to identify the species they caught, availability, habitat, method of catching, and price. Then they were asked to rank the species according to most commonly, average and least commonly found categories. This they did with great enthusiasm and often lengthy discussions arose over particular species. It was clear that the fishermen, although most of them had never seen any pictures of the fish, had a very intricate knowledge of the fish and their behaviour. The method was used with several groups from four villages in different times of the year in the region in order to cross-check information. Also, I made my own observations on fishing trips and on the beach. Nothing like this, according to my knowledge, has ever been done in Thailand. The Fisheries Department may have done surveys of marine fish, but I doubt very much that they have ever asked local fishermen about the species caught.

APPENDIX V

CYCLES AND RHYTHMS OF NATURE

For the small-scale fishermen in Krabi, local knowledge of the marine environment in which they operate is crucial for successful fishing operations. Local knowledge is, as Hobart has noted, "a practical situated activity, constituted by a past, but changing, history of practices" (Hobart 1993:17). In the following sections I attempt to unravel the way this local knowledge unfolds in practice.

Drawing on comparative material from a number of fishing societies Acheson (1981) emphasises that people who earn a living by exploiting marine resources must operate in a relatively uncertain environment. Perhaps more than any other person in the world, the fisherman is completely dependant on cycles and rhythms of the environment in which he operates.

SEASONAL RHYTHMS

Changes in the weather patterns governs the life of fishermen at least as much as lunar and tide rhythms. The west coast of peninsular Thailand is subject to a monsoon (*morasum*) climate. In the hot summer months of March and April high temperatures cause the air to rise, creating a massive low pressure area above the region. This draws wind from the cooler areas over the Indian Ocean. The westerly monsoon winds coming from the Indian Ocean pick up moisture and dump heavy rains on the west coast of peninsular Thailand from May through October. During this time, 250-400 mm of rain falls in each of these months. The sea gets rough and the waters are murky. Heavy winds bring waves crashing on the outer reef. Sometimes the incoming tide brings huge waves right up to the beach. No fisherman will venture to the sea in such weather. Of course, there are days when one can venture out to the sea and the fishermen are certainly not scared of a little rain, but one must know when

it becomes dangerous. Therefore, the monsoon season is by most accounts a bad fishing season. There is fish available out in the sea, but it is difficult to catch due to the weather. Males use this time mending nets, repairing the boats, partaking in social occasions and other activities. However, it is the women who plant rice during this period. Reef gleaning is done mostly by women and children in day time during the monsoon period. When the reef flats are exposed on the very low spring tides, crabs, fish and squid are found in pools where they are easily caught by spears and scoop nets.

After the monsoon season is over in November, better times arrive. The spawning time of many fish begins and many migratory species like Banana sailfish, Spanish mackerel, Barebreast jack, Spotted halfbeak, Hardtail scad and others appear in the bay. November through February are times of plenty. The sea is calm and the catches are good. It still rains every now and then, after all this is a tropical area where it rains almost throughout the year, but the rains are light and do not last very long at a time. This period is a very busy time for the fishermen as the best of the weather must not be wasted.

In March and April the temperature soars over + 35 degrees Celsius and it is dry. However, even though the sea is relatively calm and it is easy to go out with the small boats the fishing is not good. This is because the intense heat keeps many fish species away from local waters and only a few species are found.

In fact, the fishing year is divided into three periods. First is the monsoon season (*morasum*) when there are fish available but due to the weather it is difficult to go fishing. The second period is the period of abundant supply of fish (*raya haa plaa gnai*), when many commercially valuable fish species migrate and the sea is calm. The third is the hot period when the sea is calm but fish are hard to find (*raya haeng laeng,*

raya ook le gnai tae haa plaa yaak). This conceptualisation of seasons is shared by both sexes, although for women whose task is rice harvesting, the period of abundant supply of fish is also the harvest period.

SPAWNING

The spawning time of fish species (*wela wang khai pla*) is seasonal. Although spawning of some reef fish occurs throughout the year in Phangnga Bay, a large number of species spawn after the monsoon season is over. For some species, spawning is high in November and December and reaches a peak in January. Between February and April it is weak and between May and October low.

Many species of fish are docile during spawning time. They tend to congregate in certain locations of the coral reef usually near the outer edge of the reef. Apparently, outgoing tides spread the eggs around. Knowing the locations and timing of the spawning of the fish is important. During this time many fishermen with the knowledge of reef fishes spawning habits flock to the site with lines and nets. The behaviour of the various fish species is a common theme of discussion among fishermen. As there are hundreds of fish species that all have their individual behavioural patterns only a very few senior fishermen have knowledge about all of them. The less experienced fishermen learn about the spawning habits of the fish through discussions with the more experienced fishermen and through observation and experience.

LUNAR AND TIDAL RHYTHMS

I must confess that I was a bit lost at the beginning of my fieldwork when Lat and other fishermen tried to explain to me the complex pattern of the tides and the phases of the moon and their relationship to fish behaviour and fishing patterns. Learning all this intricate knowledge comes from years of

experience. The average city dweller probably does not even have a clue how closely the phases of the moon relate to many biological rhythms. For the fishermen, however, the knowledge about the lunar and tidal rhythms is common knowledge that is passed from generation to generation.

Full moon is *dyan hai* and this occurs once every 28 days. After full moon there is a period of fifteen days during which the moon is waning and this period is called *dyan raem*. For example the third day after full moon is called *saam kham raem* or the third waxing moon day and so on until *siphaa kham raem* or the fifteenth waning moon day which is the new moon and it is completely dark. After this starts the period of *kham khyn* or the waxing moon. For example the second day of the waxing moon is *soong kham khyn* and so on until it is *dyan hai* or full moon and the lunar cycle starts again.

The lunar cycle directly affects the tidal rhythms. The first three days after both full moon and new moon is called *nam yai* (big water) or the period of spring tides. During this time the difference between high and low tides is the biggest. During this time the currents are strong or *nam chieu* and the fishing is difficult. From the fourth through the sixth day the difference between the tides gets smaller and although there is still some strong currents the fishing gets better. This is called *nam lot long*. The seventh, eighth and ninth days are the best fishing days as the difference between the tides is the lowest. This period is called *nam tai* (calm water) or the period of neap tides, which is also considered the best period of fishing by the local fishermen. In the tenth and eleventh days the difference between the tides gets bigger and this period is called *nam khyn*. The fifteenth day corresponds to either new moon or full moon and the currents are strong again before the period of *nam yai*. Therefore, in a fifteen day cycle there are eleven good fishing days, with the seventh, eighth and ninth days after either full or new moon being the best days.

Local fishermen have an intricate understanding of the lunar and tidal calendar. For example, they are able to calculate months ahead when fishing will be good and when not. This was demonstrated to me in the early stages of my fieldwork. I went with Chongrak, who is the local representative of Thai Volunteer Service (a Thai NGO), to Ban Laem Sak in Amphoe Ao Luk, Krabi to invite the local community leaders to an environmental meeting in Krabi town. We had fixed certain dates in advance, but had not thought what would be appropriate for the fishermen. Bang Sin, one of the elders looked at the calendar and soon told what days were such dates that would not interfere with fishing. He chose the dates when it was *nam yai* when fishing was not good and they would have spare time available. We then changed the dates of the meeting as was appropriate for the fishermen.

DAILY RHYTHM

There are two high tides (*nam khyn*) and two low tides (*nam long*) each day and their timing varies with the moon's phases. The height of water changes from hour to hour depending on what day and what time it is. For example, the first day after full moon in Krabi bay (13th January 1994) at one o'clock in the night the height of the water at a certain point was 29 decimetres, at the same point at five o'clock in the evening the reading of the water level was only 7 decimetres. This corresponded to the spring tide or *nam yai* when fishing was bad. Again on the seventh day after the new moon (3rd of April 1994) the height of the water at the same point at one o'clock at night was 22 decimetres and at five o'clock in the evening it was 27 decimetres. This corresponded to the neap tides or *nam tai* when fishing was good.

Knowledge on the daily rhythm of the tides is extremely important for fishing operations. One can not just go out fishing any time of the day. The boat will get stuck in coral reefs and sand bars if the timing is wrong. Nonetheless,

despite knowledge of the tides even expert fishermen can get things wrong sometimes. For example, one morning I had arranged to go fishing with Pong, a Ban Ko Kwang fisherman. On the preceding evening he had told me to come to his boat around half past seven next morning. When I arrived on the beach as we had agreed I was surprised to see that his boat was lying on a sand bar and the tide was receding fast. He explained to me that he should have anchored the boat further out on the previous night, but had actually forgotten to do so. There was nothing we could do except to wait for the tide to rise again.

In addition, the behaviour and movement of fish is connected to the tides. For example, many fish species move from deep water up the reef slope to feed with the rising tide. Again as the tide goes out many fish species like to congregate around the outer entrances of channels of the reefs to feed on whatever the outgoing tide brings.

Therefore, one must know what technique to use where at what time of the day. Traps and cast nets are set up in certain depressions in the reef where some species like to congregate at rising or receding tides. The *uan loi* can not be placed in areas where the tidal currents are strong as the *uan loi* would be swept away with them. As will be discussed in the usage of the *po*, the pathways of tidal currents affect where the *po* can be set up. The fishermen often like to discuss the placing of the *sai myk*. If the currents are strong (*nam chieu*), especially around the first three days after either the full or new moon, squid traps could get carried away. Therefore, places where the currents are especially strong are avoided altogether. On the other hand, fishing with line hooks is good in these places.

Often, fishing with *uan loi* is best during neap tides as the currents are weak and the nets do not get carried away. Squid is more likely to enter a trap in the early morning with the

rising tide. On the other hand, during moonlit nights squid get wary and do not enter traps. During this time, trolling, however, is at its best.

Reef gleaning is done almost exclusively in day time. Catching crabs on the shore is, however, done at night on moonlit nights.

Krabi fishermen argue that the fish tend to bite better early in the morning and in the evening. Besides, timing of the day and the tides, visibility is another factor affecting fishing. The clearest conditions occur during two to three hours of the incoming tide.

WAVES, WINDS AND CURRENTS

Although most contemporary boats have motors, knowledge of wind and current patterns are important for successful fishing. While the knowledge of lunar and tidal rhythms is common knowledge, only the more experienced fishermen know all the different names and behaviours of the various winds. This is partly due to the fact that those who have used sails sometime in their fishing career are well acquainted with the wave, wind and current patterns.

There are eleven different names for various winds blowing in the region at different times of the year. Both local Malay and local Thai names are used. I have translated the terms literally below. The northern wind is known as *timo padang* or *lom taak thoong* (wind exposing belly). The north-eastern wind is called *timo pulan* or *look dyan* (wind of month). The eastern wind is called *timong* or *lom ook* or *lom taak* (wind exiting). Between the eastern and south-eastern winds there is a wind called *timo tari* or *lom ook saeng wan* (wind comes through sun rays). This is a kind of wind that will blow for days at time. Also close to the direction of *lom ook saeng wan* blows a dangerous storm wind called *selatan*. Fishermen do not dare say

aloud the name of this wind while out in the sea as they fear a sudden storm will arise. The south-eastern wind is called *lom hua noon* (wind under head). The southern wind is called *jaronpada* or *lom khem san* (wind of short needle), which is a wind that blows lightly in phases. Between the southern and south-western winds is *ba baat*, which is a dangerous heavy storm wind. The south-western wind is also a strong wind called *lom phrat* (storm wind). Curiously there are six winds that blow from the southerly direction. This is probable due to the geographical position of Phangnga Bay and fishermen give importance to these winds. The western wind, *baloot* or *nak le*, is the heavy monsoon wind. Finally the cold north-western wind is called simply *taraa*.

Sometimes while at sea it is difficult to tell from which direction the wind blows. This is especially the case when one gets caught in cross winds. Then one must look at the *mae khlyyn* or the mother of waves to tell the direction.

These waves are big rolling waves that come from a certain direction at certain times of the year. By knowing them, one can tell the direction. Beside the winds and waves, currents are important in fishing. As discussed in a previous section, fish behaviour is affected by tidal currents. Prevailing currents also bring migratory species to the area after the monsoon season. During the peak fishing season November through February the currents are weak and it is easier to navigate. During the monsoon season the currents get stronger. Two fishing spots that must be mentioned are those created by the currents near islands and shores. These are usually the best fishing spots and therefore fishermen must know the behaviour of currents at these points. Usually, on the upstream end of an island the current divides and is directed past the island on either side. Near the shore it is calm and here fishing is good. The fastest currents are near the points where the currents pass the sides of islands. The currents converge at some point downstream at the other side of the

island and this area is very rough and potentially dangerous. The currents near the shore flow usually in one direction creating sand bars and channels. For example, in Ao Nang area the prevailing current flowed past a rocky promontory south-west towards the beach carving sand bars and channels into the seabed. Here many fish species liked to congregate when the tides changed direction. At certain times of the day, the tidal currents got dangerously strong and if not careful a fisherman could get swept out into the ocean.

APPENDIX VI

PRODUCTION DATA ON RICE, RUBBER AND PALM OIL CULTIVATION

RICE

AVERAGE SIZE OF RICE LAND PER HOUSEHOLD	4 *rai* (.64 ha)
FORM OF OWNERSHIP	own
PRODUCTIVITY PER *RAI* PER SEASON	720 kgs of paddy
COST OF FERTILISER	145 baht per *rai*
COST OF LABOUR	family/exchange
USE	own consumption

RUBBER

AVERAGE SIZE OF RUBBER PLANTATION	20-25 *rai* (3.2-4.0 ha)
FORM OF OWNERSHIP	own
PRODUCTIVITY PER *RAI* PER YEAR	around 1,200 baht
COST OF FERTILISER	120 baht for 20-25 *rai*
LABOUR	self/hired
USE	latex sold

PALM OIL

AVERAGE SIZE OF PALM OIL PLANTATION	30 *rai* (4.8 ha)
FORM OF OWNERSHIP	own
PRODUCTIVITY PER *RAI* PER YEAR	2,000 baht
COST OF FERTILISER PER *RAI*	330 baht
LABOUR	usually hired
USE	fruit sold

Notes. It should be noted that the above figures are intended to provide only a general idea of costs involved in production. The minimum requirement of rice land for a family of five to six persons is four *rai*. One *rai* produces 60 *thang* of paddy which is around 720 kilograms of paddy per *rai*. When the rains come a field for raising rice seedlings for transplanting must be ploughed. The rice that is used for sowing seedlings is rice that has been kept aside from the year before. Then the fields to which the seedlings are transplanted must be ploughed. Some people still use water buffalo for ploughing, but increasingly the iron plough with a little engine (*khwai lek* or iron buffalo) is used. Few people own their own iron plough and must rent it at 380 baht per *rai*. Fertiliser (*pui*) is added to the field at the cost of 290 baht for two *rai*. The ploughing of the land and the adding of fertiliser to it is a man´s task. Rice seedlings are transplanted to the field at the end of September. This is done by both women and men. The rice takes around three months to ripen for harvesting, which is done in December and early January.

The harvested rice is gathered into plastic bags and taken to the rice barn that stands in each family compound. The paddy is milled as need arises at the local mill at 30 baht per *thang* (12 kilograms) as paddy keeps longer than milled rice. The harvesting of rice is almost entirely a woman´s task. It is done using reciprocal labour. Kin and neighbours work one field first and then move to another until all rice has been harvested.

A 25 *rai* rubber plantation yields approximately 20 sheets of rubber per day which amounts to around 25 kilograms of rubber per day. The average price for a kilogram of rubber in 1994 was 16 baht. This gives a 400 baht gross profit per day for a 25 *rai* plantation. From this, the cost of fertiliser and in some cases labour costs must be deducted. Fertiliser costs 300 baht per 50 kilogram sack. A 25 *rai* plantation requires around 400 kilograms of fertiliser per year amounting to around 2400 baht for fertiliser costs per year. Small holders utilise family labour in production, but must sometimes hire outside labour at 50-60 baht per day. Other costs include the cost of the press, which costs around 2500 baht, and acid at 15 baht per litre and transportation costs of the sheets to the middleman. The press, however, will last for over a decade as it is a simple device. All costs deducted, the owner of a 25 *rai* plantation will receive a net income of around 280-300 baht per day. However, one must take into account seasonal variation in production. The seasonal variation in production obviously lowers the net profit considerably.

The average individual household owns a palm oil plantation of around 30 *rai*. There are around 22 plants in one *rai*. They are always planted 4.5 meters apart form each other, since the trees require much space when they grow bigger. One sapling costs around 50 baht, requiring an investment of 1100 baht per *rai*. When the trees are young they require around a half a

kilogram of fertiliser per tree per year and two to three kilograms per tree per year when they are bigger. One *rai* requires around a 50 kilogram sack of fertiliser costing around 330 baht. An average tree produces around ten *khalai* (bunch of fruit), one *khalai* weighing around 20 kilograms. An average mature tree will bear approximately 200 kilograms of fruit per year. The selling price of palm oil for the producer in 1994 was 2-3 baht per kilogram. Therefore, one *rai* of palm oil trees can bring around 10,000 baht for the owner. When such figures are juxtaposed with the average annual income of 15,000 baht of the poor fishing household the palm oil plantation owner looks like a Croesus to the poor fisherman. The labour costs are low since the trees need little tending. The undergrowth must be cut every now and then and fertiliser added every two months. Most families do these activities themselves. Only when the fruit is collected must outside labour be hired at 90 baht per day per man. Usually three labourers are hired for a period of four to five days to help collect the produce.

APPENDIX VII

HOUSEHOLD CENSUS QUESTIONS

PART 1 FAMILY FEATURES

1. Total number of household members

a) sex	b) age
c) relationship to household head	d) schooling
e) work	f) migration status
g) politico/ritual status	h) marriage status
i) age at marriage	j) divorce

PART 2 PRODUCTION OF MEANS OF LIVELIHOOD

2. What would you regard as the main field of income generating activity of this household?

3. Does the household have additional sources of income besides the above?

4. What is the total income earned from all sources for this household in the past 12 months?

FISHING QUESTIONS

5. Is this household fishing this year?

a) Yes b) No (Skip to question 18)

6. With a normal year does this household catch enough fish for consumption needs?

a) less than required for consumption
b) sufficient to meet consumption needs only
c) more than needed for consumption (surplus)

7. What are the main methods used in fishing?

a) traps
b) nets
c) hooks
d) others

8. How is the boat acquired?

a) inherited through husband
b) inherited through wife
c) purchased
d) other

9. What was the value of total sale in fishing products in this household last year?

10. Did this household invest in fishing equipment last year?

11. What was the total amount of cash investment?

12. For what purposes was the cash spent?

13. What were the two most important sources of cash for investment in the last fishing season?

a) own money
b) bank
c) money lenders
d) relatives
e) others

14. Is this household a member of any fishing group?

a) No b) Yes, specify

15. To whom do you sell the surplus fish?

16. Do you think the important resources related to fishing in this area will

a) increase
b) decrease
c) remain the same as now

17. Why do you think so?

AGRICULTURAL QUESTIONS

18. Does this household have rice-land, and if do, how many *rai*?

a) Yes ___ *rai* b) No (Skip to question 21)

19. How was the land acquired?

a) inherited through husband
b) inherited through wife
c) purchased
d) rented
e) other

20. Is the crop primarily used for

a) subsistence needs
b) sale
c) both?

21. Does this household have a rubber plantation?

a) Yes ___ *rai* b) no (Skip to question 31)

22. How was the land acquired?

a) inherited through husband
b) inherited through wife
c) purchased
d) rented
e) other

23. What was the total earnings from the sale of rubber sheets in this household last year?

24. In the past year did this household have any cash investment in the rubber plantation?

a) Yes b) No (Skip to question 28)

25. What was the total amount of cash investment?

26. For what purposes was the greatest amount of cash spent in the last year?

a) fertiliser
b) renting land
c) equipment/tools
d) labour

27. What were the two most important sources of cash for investment in the last year?

a) own money
b) loan from financial institution
c) relatives
d) money lenders

28. What were the sources of labour for the rubber plantation last year?

a) domestic
b) hired
c) exchange

29. Is this household a member of any rubber farmer´s association?

30. How many hours are occupied in your main activity in a month?

PART 3 CONSUMPTION

31. How much money in the average does this household spend per month on

food	clothes
medicine	social

32. Did this household buy any land in the past five years and if yes how many *rai*?

PART 4 LIVING CONDITIONS

34. Characteristics of the house

35. General features of the neighbourhood

36. Source of water supply

37. Where is the food prepared?

38. Does this house have electricity?

39. Does the household have the following assets?

a) water buffaloes
b) goats
c) chickens
d) ducks
e) ploughing tractor
f) well
g) TV
h) motorbike
i) pick-up truck
j) boat
k) garden-land

GLOSSARY

ahiwatakkarok = cholera epidemic
anurak = conserve
ao = bay
ayu = age
bang = older brother, also used to address any male senior to ego
bet = line and hook
bet raw = a kind of long line to which is attached hundreds of small hooks
bia = gift of money
bo kung = shrimp pond
boek uan = prepare nets
bun = merit
cha = older sister, also used to address any female senior to ego
chakkhriidyaang = iron press for pressing rubber sheets
chalaam = shark
chao pho = gangster boss
chao pramong = fishermen
chao pramong phyynban = small-scale fishermen
chao thi = guardian spirit
chart = nation
chareat = world of the senses
chew = oars
chook = luck
chon salat = pirate
doah = blessings from Alloh
du = angry
du au = to observe
dyan hai = full moon
dyan raem = period of fifteen days after full moon
faak = to leave into the care of some one
fang plaa = listen to fish in water
garn maulid = Prophet´s birthday celebration
garn sop = funeral
hae = cast net
hae chau bau = processing of the groom and friends carrying gifts of betel, areca leaves and lime on their way to the bride´s house
hakekat = the internal world where the soul is found
Hari Raya = day after the month of fast is over
hin tai naam = underwater rock
hong luang = central room of the *po*
hoob = spear
hua khaeng = stubborn
huay = channel
ibilis = Ṣatan
jitsamnyk = consciousness
jya = bait
kaeng kari = chicken curry
kanchang = inner room of the *po*
kammakarn pattana muban = village development committee
kammakarn masjid = mosque committee

kamnan = subdistrict chief
kamyaan = incense stick
kalaphrau = coconut shell cup used for gathering latex
kalarok = bubonic plague
kapi = fermented fish paste
kham khyn = waxing moon
kham raem = waning moon
khamin = turmeric
khan mak = gifts of betel
khau = them
khau suadonwoon = ask blessings for the soul of the deceased
khau sunat = circumcision ceremony
khaek = term given by Thai Buddhists to refer to Muslims
khatha = spell
khet haa plaa = fishing grounds
khet raksaa satnam = marine life reserve
khoei = shrimp paste
khon haa plaa = lookout
khon le = sea people
khon don = land people
khlong = canal
khlyyn = wave
khmoi = thief
khriityaang = tap rubber
khrua = hearth
khrua ryan = household
khuam dii kap khuam chua = goodness and badness
khuam ruu = knowledge
khyn pree = ´to climb the cradle´, i.e. the naming ceremony of the child
kiang chod = kerosene lamp
klin saap = bad odour
kolbulruh = soul
kong = piece of the boat frame approximately 0.5 metres in length
kongkarnsoutenseebod = Southern Seaboard Development Plan
kubor = village cemetery
laan = children´s children
laat = market
laem = cape
lak nai = inner laws
lamat = prayer session
le = sea
lok akerat = the world of death
lok dunyo = the physical world
lok thong = the world of the womb
lok winyaan = the world of spirits
lom = wind
loom = portable fish trap
luuk = children
luukrya = crew member of a fishing boat
ma = mother
ma´a = bride wealth
mae khaa = trader
mae yaa naang rya = the female guardian spirit of the boat
maeng khrapung = jellyfish

mainaenon = uncertain
mai yaang = a kind of hard wood used for boat building
masjid = mosque
masu = mother´s & father´s younger sister
mawa = mother´s & father´s older sister
mo tamyae = midwife
mo tham sunat = circumciser
morasum = monsoon season
myk = squid
nai thun = capitalist
nakleng = gangster
nam chieu = period of strong currents
nam khyn = rising tide, high tide
nam long = low tide
nam lyk = deep water
nam tai = calm water
nam tyyn = shallow water
nam yai = period of spring water
nammanpaam = palm oil
nammantangiu = a kind of resin used for dyeing nets
nammon = lustral water
namsom = acid used to mix with rubber latex
nika = religious part of the marriage ceremony
nongbau = younger brother
nuri = merit making feast
nyng = steam
nyng nai saam = share system
pa = father
paa chumchon = community forest
paa kongkang = mangrove forest
pai su kho = to go ask for the girl´s hand
pakarang = coral
pakarang thiam = artificial coral reef
paknam = river mouth
paktai = Southern Thailand, Southern Thai dialect
pasu = father´s & mother´s younger brother
pawa = father´s & mother´s older brother
phak puak = ´our group´
phasa klang = Central Thai dialect
phayu = storm
phong khau = heroin
phi jin = sea spirit, guardian spirit
phi phlai = malevolent sea spirit
phu yai baan = village head
phu suai = deputy village head
phyynban = artisanal, local, traditional
phyyn sai = sand bottom
ping thale = sea cucumber
piik = wing of the *po*
plaa = fish
plaa myk = squid
pluk paa = reforest
po = a kind of large stationary weir
ponoh = religious school
pravat = history, the past
prasoppakarn = experience

puleh = to awaken, annual boat blessing ritual
rai = unit of land (0.16 ha)
rakhaa ruchakkan = ´friends only price´
raksaa = take care
rau = us
ronan = stingray
rya bai = small fishing boat equipped with a sail
rya haang yau = fishing boat with an outboard motor
rya sampau = Chinese junk
saang sakkrayaphaap = to empower, process of empowerment
sai myk = squid trap
samana = seminar
samaphan chao pramong phyynban paktai = Association of Small -Scale Fishermen of Southern Thailand
samniang = dialect
sampataan pa = leasing of a piece of forest for the purpose of cutting the trees
sappayakhoon chai fang = coastal marine resources
satsanaa = religion
sau dam = a kind of bark poison used for stunning fish
sawing = small dip net
siang = to risk
sinsoot = bride price
sola = diesel
song teuw = rural pick-up truck
suai = annual tax on fishing equipment used in the past
suan phrau = coconut orchard
suan yaang phra = rubber plantation
suk = boiled
surau = village prayer house
tai = skipper
talat nat = Thursday market where villagers come to sell their produce
thaa rya = pier
thale andaman = Andaman Sea
thambun = to make merit
tham thaang = to build roads, a kind of corvee labour used in the past
thian = candle
thong daeng = term used to denote to impure speech
thurakit = business
to chai = father´s father, mother´s father
to mo = village curer, herbalist, ritual specialist
to ying = father´s mother, mother´s mother
tua khong tua eng = being the boss of oneself
tuba = a kind of poison used for stunning fish
uan = net
uan chalamet = gill net used for catching Pomfret in the past
uan kung = gill net used for fishing shrimp
uan loi = drift gill net
uan pu = gill net used for catching crabs
uan run = push net
usahakam = industry
usahakam thamthaan = charcoal industry
wa = fathom
wela waang khai plaa = spawning time of fish

yaanat = pineapple
yaanggnod = latex from rubber tree
yaangphaen = rubber sheet
yom = to dye

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